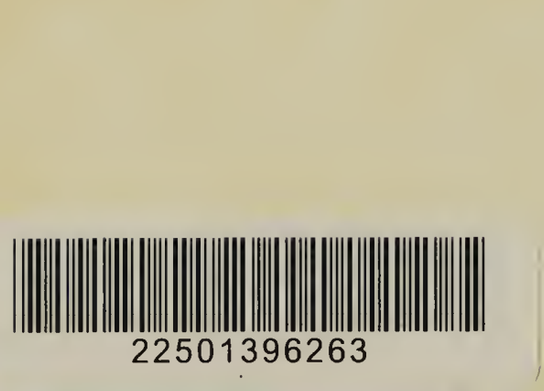
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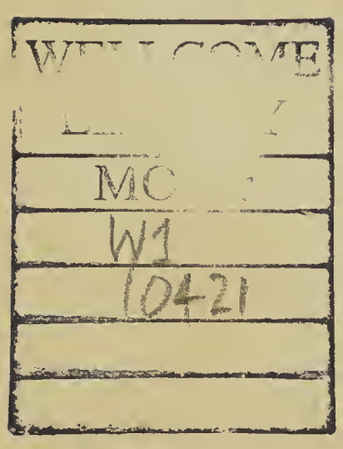
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ORIGINAL LECTURES.

LECTURE
ON
TRACHEOTOMY IN THE LAST STAGE OF CROUP.

By Dr. A. TROUSSEAU,
Professor of Clinical Medicine and Physician to the Hôtel-Dieu.

Communicated by Dr. TROUSSEAU, and translated by Dr. BEYLARD, Chef de Clinique at the Hôtel-Dieu.

The operation of tracheotomy in the last stage of croup, honourably brought forward by my master, Dr. Bretonneau, and practised by him for the first time with success, was introduced by me in Paris when it counted indeed but a single cure, and it is easy to imagine what struggles I have had to encounter in propagating and forcing into the province of ordinary therapeutics so strange and unknown a practice.

It is singular, but not the less true, that surgery has placed the most formidable obstacles in my way: and even at the present time, with the exception of Dr. Guersant, most Surgeons dislike this operation, certainly not from the want of sufficient skill to accomplish it well, but because they are not sure of a satisfactory proportion of cures.

In certain European countries, and in England particularly, tracheotomy in cases of croup is still so isolated an operation that in all Great Britain it is not so much practised as in Paris alone.

I have often asked myself the reason of so much repugnance, and I find it in this completely false idea, viz., that tracheotomy in the last stage of croup is rarely successful. Unfortunately, when there is a question of surgical operation, much faith is placed in the opinion of Surgeons of high repute; and if these eminent men speak of their own operations, invoking their own experience, they have so many failures to relate that their discouragement overshadows the mind of their readers.

Now, if men like Dr. Bretonneau and myself, who have only practised medicine, wish to oppose the most eminent Surgeons, what authority could we invoke? Our surgical inexperience, which we do not endeavour to dissimulate, is known, and our partiality with regard to an operation which we continue to recommend, *perhaps* obstinately, is mistrusted.

I am firmly decided, for my part, not to be discouraged, but to advocate tracheotomy with so much the more conviction as the proportion of successful cases increase; and if that proportion remained even as it was ten years ago, I would still proclaim the necessity of tracheotomy, and I would not cease to uphold it as a duty, a duty as imperious for a Surgeon as the ligature of the carotid artery after a wound of that vessel, even if death followed the operation as often as the cure.

Here are the results of my operations for tracheotomy during the year 1854:—I operated on nine children. Of these, two died, while seven were cured, and are now living in perfect health.

Certainly the proportion of cured is not always so great; still, if I make the sum total of the operations I have performed in the last four years, I find twenty-four operations, and fourteen cures, equivalent to more than half.

At the Hôpital des Enfans Malades, in the last five years, the proportion of cures has been nearly a quarter. Here are the official numbers, viz.:—

1850	20 operations		6 cures,	about 1-3rd.
1851	31	,,	12 ,,	more than 1-3rd.
1852	59	,,	11 ,,	less than 1-5th.
1853	61	,,	7 ,,	only 1-9th.
1854	44	,,	11 ,,	only 1-4th.
Total	215	,,	47 ,,	about 1-4th.

This result is considerable, if we remember the social condition of the children who are brought to the Hospital, the deplorable treatment they are subjected to by "sage-femmes," quacks, etc.; in a word, those persons the poor generally consult in preference to Doctors. We should bear in mind, too, the unfavourable condition of the Hospital, where the children operated upon are placed in the midst of the most varied and fatal contagion; so much so, that often when the operation for tracheotomy is succeeding as well as could be desired, the scarlet fever, measles, small-pox, or hooping-cough cause the most fearful complications.

I do not doubt that half the operations performed out of Hospital are successful, always provided tracheotomy takes place when the chances of cure are possible.

This restriction is important; for, if the diphtheritic infection is thoroughly rooted in the system, if the skin, and particularly the cavities of the nose, are invaded by this special phlegmasia; if the quickness of the pulse, delirium, prostration, indicate a profound poison, and if the danger is rather in the general state than in the local lesion of the larynx or of the trachea, certainly the operation should not be tried, for it is invariably fatal; when, however, the local lesion constitutes the principal danger of the disease, no matter at what degree asphyxia has arrived, even if the child has but a few moments to live, tracheotomy succeeds invariably, as well as though it had been tried three or four hours sooner.

Tracheotomy is performed by opening the trachea, and the trachea only. Many Practitioners insist upon opening, at the same time, the crico-thyroidean region, including the cricoid cartilage and the two first rings of the trachea. It suffices to reflect only for an instant to see that in so doing we necessarily penetrate into the larynx itself, and if, as it often happens, the cannula remains several days in the wound, there arises a partial necrosis of the cricoid cartilage and even of the thyroid cartilage, which may become a source of the most serious ulterior symptoms; besides, there may result an incurable alteration of the voice. Therefore it is necessary to open the trachea and the trachea only.

The method of operation varies. The most brilliant is that described by Heister (Institut. Chirurg. 2 part. 3, cap. 102, No. IV. p. 722). It consists in penetrating at once into the trachea with a trochar, which is immediately withdrawn, the cannula remaining in the wound. Van Swieten prefers the slow and continued operation. The system of operation imagined by my much-regretted friend, Auguste Bérard, resembles the method just indicated, rather than that advised by Heister. He finds the position of the trachea fixes the tube between the index and medius, and thrusts the bistoury just below the cricoid cartilage, when the whistling of the air proves that he has entered the trachea; he then lengthens the incision below, opening three or four rings of the trachea, introduces rapidly the "dilatateur," and places his cannula—the operation of a minute. But frightful hæmorrhage proved to Bérard that the quickest was not always the best method, and in the latter years of his life, he upheld the common and more sure operation in preference to a more rapid one.

Dr. Paul Guersant had equally adopted the method I call expeditious; but he promptly acknowledged the dangers, and now, although he operates more quickly and better than any of us who are not Surgeons, still he proceeds deliberately, and with sufficient precaution to avoid those serious results which all men eminent in the practice of Surgery have acknowledged and proclaimed. I insist the more upon the necessity of making an incision through the successive layers of tissue, separating the vessels and the muscles with the blunt erigna, laying bare the trachea before opening it. As tracheotomy will become the most common of surgical operations, and will, in consequence, be practised oftener by Physicians than Surgeons, let the patient beware, if a man ignorant of surgery does not feel himself in duty bound to be *too* slow in his operation. I have never seen precaution the cause of an accident, and often have I witnessed the difficulties and dangers of tracheotomy *too* quickly performed, even by the hand of a skilful operator.

I have mentioned above the necessity of having the proper instruments. These are, a straight or convex bistoury, a blunt bistoury, a dilater (or instrument to dilate the trachea), two blunt erignæ (the latter can easily be replaced by two wires or two bent pins); finally, a double cannula, the diameter of which should be sufficiently large, and never too large, provided the instrument enters freely into the trachea. The double cannula is absolutely necessary; and truly, when we see in what language Van Swieten (Comment. T. II., p. 528,) insists upon the necessity of a double tube, and cites for authority the English author Martins, we ask how this precept has been forgotten, and how, in spite of the recommendation of Dr. Bretonneau, who, in his earliest operations, used the

unbent double cannula, we have ourselves remained several years without using it.

Of these instruments the most indispensable are the ordinary bistoury, the erigna, the dilater, and the double cannula. I once lost a patient during the operation: the child was treated by my honourable brother Physician, Dr. Barth. I came to the consultation without knowing the disease in question, and found the child dying. Dr. Barth had a cannula and bistoury. I could not separate the vessels as I wished. I had no dilater. I felt a long time before entering into the trachea, while the blood flowed in great quantity in the bronchus, and suffocated the child, which certainly would not have happened had I had a dilater, which would have permitted me to penetrate immediately into the trachea. When once we have penetrated into the windpipe, no matter by what means, let the operation be more or less skilful, more or less rapid, still the position is the same, provided we avoid hæmorrhages—for the loss of blood has a serious influence on the results of the operation.

There now remains the treatment—a question entirely Medical, of so much importance that it will henceforth be dominant. With regard to the treatment, while some invariably lose all their patients, others save more than half. I should be wrong to speak of the intervening treatment alone; great importance should be attached to that mode which the patient has already undergone. Let us confess at once, since it is the truth, that, in our days, Physicians are happily convinced that general medicatives and revulsives are perfectly useless; the result is, that they do not weaken their little patients by cupping or bleeding. I am, for my part, well convinced that if I have been more successful for several years past, it is to be attributed as much to the good direction given to treatment by my fellow-practitioners, as to the method I have followed.

The operation once performed, the first duty of the Practitioner is to see to the nourishment; that remedy above all essential in most acute maladies, and particularly so in diseases of children. Certainly, abstinence, prescribed by Broussais, and ordered by those Practitioners who still cling to the old school, and who keep up the prejudices of their early Medical education, is one of the most pernicious helpers of disease, it is the best means of prolonging the infection of the system, and the surest way of facilitating the absorption of exterior miasma and vicious excretions formed by the malady; the surest opponent of that resistance which is the chief aid of convalescence and ultimate cure.

Now, I do not mean that we must fall into the opposite extreme, that we must overfeed the little patients; I only say, that we should satisfy the appetite, if they have any, and even force them to eat, if they show too much repugnance to food. Do not hesitate in employing intimidation; in this case often have I assumed the air of severity, and obliged the child to eat, thus preparing the way to a cure I otherwise judged impossible. Milk, eggs, custards, chocolate, and soups are the aliments I most insist on. What I have here urged sufficiently indicates that I most formally proscribe the continuation of those means judged more or less useful before the operation, viz.: calomel, alum, emetics, and purges, which are not compatible with the nourishment I advise.

I need not add, that the application of blisters would be pernicious, inasmuch as they would establish a new surface when the specific inflammation would break out, and thus occasion a fatal absorption, which must be avoided at any risk.

When this happens, as it often does, after blisters have been applied, we must as soon as possible dress the wound with extract of rhatany or Goulard's cerate, or else rub it with nitrate of silver, if diphtheritic concretions already cover the skin which has so uselessly been laid bare.

I now come to the details of dressing, to which I seem to attach so much importance; but the older I grow the more I am convinced that, in Medicine, the minutiæ hold a much more considerable place than is generally supposed. Great care must be taken in placing between the skin and cannula a round piece of oiled silk, or India-rubber, in order to prevent the sides of the canula, and the strings which attach it, from irritating the wound.

The patients must be taught to remove and replace the internal cannula, which is to be cleaned every two or three hours.

The child's neck must be enveloped in a knitted woollen scarf or large piece of muslin, so that he breathes in through the tissue which covers the neck, and inhales the warm air impregnated with the moisture furnished by the breath. This precept is excellent; we thus avoid the drying of the cavity of the cannula and of the trachea; we prevent the irritation of the mucous membrane and the formation of hard scabs, analogous to those which form in the cavities of the nose of persons attacked with coryza, scabs which, detaching themselves in complete tubes or in fragments of tubes, cause terrible fits of suffocation, and sometimes even death, by the occlusion of the cannula.

Before Dr. Guersant and I had adopted this method, we lost numbers of patients by catarrhal pneumonia, and now this result is much less frequent. It is very probable that the introduction of hot and moist air into the bronchi is quite a favourable condition. There is still a practice, without which the cure is rare: I refer to the cauterization of the wound. The first four days the whole surface of the incision should be vigorously rubbed with nitrate of silver once a-day; thus we avoid a serious result. I mean the diphtheritic infection of the wound which covers itself with thick and fetid false membranes. A specific inflammation seizes the surrounding cellular tissue, and developing often a bad species of phlegmonous erysipelas, which becomes the occasion of local gangrene, and at last of a violent symptomatic fever, and of a general infection almost always fatal. The fifth day the surface of the wound is so modified that the results above indicated are no longer to be feared. There now remains a last and very delicate part of the treatment, to which I wish to call attention for an instant—I refer to the removal of the cannula and the definite occlusion of the wound. We must establish the fact that the sooner the cannula is removed the better. This can rarely be done before the sixth day, as it is seldom necessary to scar it later than the tenth. However, there are cases when the larynx remains completely shut during fifteen, twenty, and even forty-four days, as I saw in the case of a young girl eventually cured.

At the end of the first week we must remove the cannula, taking great care not to frighten the child or make it cry. The poor little sufferers are so accustomed to breathe with ease by artificial means, that when the cannula is removed, in order to facilitate the passage of the air through the larynx, they are seized with excessive fear, expressed by agitation, cries, and in consequence there is an acceleration of the breathing. The larynx is still a little obstructed either by false membranes, by mucus, or by a slight tumefaction of the membrane; and then, perhaps, the laryngeal muscles have lost the habit of contracting in harmony with the wants of the respiration. There often results great difficulty from this circumstance. This difficulty disappears well enough in the great number of cases, if we succeed in tranquillizing the little patient: this is the province of the mother rather than the Practitioner. The wound is closed with short strips of court-plaster. If the sound of the cough or the respiration, or the nature of the voice indicate that the opening of the larynx is sufficiently large, we leave the dressing there; but if the air only pass in insufficient quantity, the plaster must be put on; the wound should only be covered with linen and simple cerate, and we wait the next day before closing the wound; if the air do not pass at all then, we replace the cannula, and, two or three days later, make the attempt again.

So soon as the respiration proceeds well, notwithstanding the occlusion of the wound, we should renew the dressing two or three times a-day; ordinarily the opening of the trachea is shut in four or five days; then only remains the exterior wound, which we dress with linen, and which in its turn soon heals.

There is a serious difficulty which I have remarked to Physicians for a long time, and to which Dr. Archambault has recently called attention, I mean that of swallowing. This difficulty consists in the passage of liquids through the glottis: each effort the patient makes to drink is followed by a violent and convulsive cough, and the liquids, which penetrate into the trachea and the bronchi, flow in abundance by the opening of the cannula. Besides the serious inconvenience which may follow from the contact of food with the mucous membrane of the bronchi, there particularly results an insurmountable disgust, and children often die of hunger, in preference to taking their nourishment. So often this complication has been the cause of death after tracheotomy, that I have made great efforts to find a remedy. The best method is

forbid liquid food. I give to children very thick soup, vermicelli with milk, or with beef-broth, so thick as to be eaten with a fork rather than a spoon, hard-boiled eggs, eggs with milk, occasionally meat in large pieces, and I forbid all drink. If thirst is too ardent, I recommend pure cold water, and I am careful to administer it either long after eating or immediately before, in order to prevent vomiting. I should remark, however, that the difficulty of which I speak scarcely manifests itself before three or four days after the operation, and that it lasts rarely longer than ten or twelve days. Nevertheless, I have seen it persist much longer with some children.

It would seem that the larynx, which is so open to receive drinks and liquid aliments, should suffice also for the passage of the air necessary for the purposes of respiration; this is not the case, however. If we remove the cannula, we perceive that the opening is still insufficient, and even some days later, when we are able to close the wound with court-plaster, these difficulties continue with the same violence.

It is almost impossible to discover the cause of this. Dr. Archambault holds that the child, who has breathed by the cannula for some days, loses the habit of freely using those muscles which serve for the occlusion of the larynx, and those which push the food into the œsophagus, and he highly approves the following ingenious method, which consists in momentarily closing the cannula with the finger, whilst the patient swallows; thus the child is obliged to use its larynx, and the normal harmony of its organ is re-established.

This little stratagem succeeds well in some cases, but in others it completely fails, and what I have said above proves it; since even when the cannula is removed, and the wound is completely closed, yet the difficulty of deglutition continues, although the breathing through the larynx may be perfectly free and regular.

So much for tracheotomy and the means which lead to its success. I have written here nothing which I have not already said and repeated in the periodical journals, and in my lectures at the School of Medicine; but often, the commonest things are precisely those which we most neglect, which we the soonest forget, minutiæ which we recall to those who are led astray by extraordinary and brilliant operations.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF FEVER BY LARGE AND FREQUENTLY-REPEATED DOSES OF QUININE.

By THOMAS B. PEACOCK, M.D.,
Assistant-Physician to St. Thomas's Hospital, and Physician to the Hospital for Diseases of the Chest, Victoria-park.

[Read at the Hunterian Medical Society, November 28, 1855.]

In the month of October, 1851, Dr. Dundas, of Liverpool; addressed a letter to the Editor of the *Medical Times and Gazette*, in which he advocated the treatment of typhus, by large and frequently-repeated doses of disulphate of quinine. In the November number of the *London Journal of Medicine*, he further explained his views, and the practice based upon them, and reported, in confirmation of the utility of the treatment he recommended, the experience of other Practitioners, more especially of Dr. Goolden, at St. Thomas's Hospital. The latter gentleman stated that he had employed the quinine treatment in the cases of five adults and three children, and had found its effect satisfactory in all but one; and he further reported that the remedy had been used with advantage by Mr. Hine, of Swindon.

In the year 1852, Dr. Dundas published a work, containing a series of lectures "on the Nature and Causes of Tropical and European Fever," in which he reprinted the former communications on the employment of the quinine treatment, and gave corroborative evidence of its usefulness from other Medical men, who had tried the remedy since the publication of his former papers.

In April and June, 1852, a Clinical Lecture, by Dr. Hughse Bennett, was published in the *Edinburgh Monthly Journal*, in which he related the results of his employment of large doses of quinine in nine cases of fever; and stated that, though the physiological effects of the drug were fully manifested, no remedial influence was apparently exerted by it. He further mentioned that it had equally failed in one case in the practice of Dr. Christison, and in eight in which it had been exhibited by Dr. Robertson. These facts were subsequently confirmed, in a discussion at the Medico-Chirurgical Society of Edinburgh; but it was there stated that Dr. Dundas had received favourable reports of the treatment from Dr. Graves of Dublin, and Dr. Kelly of Drogheda. In August, 1852, a report, by Dr. M'Evers, of six cases of typhus fever treated at the Cork Fever Hospital, with quinine, as recommended by Dr. Dundas, was published in the *Dublin Journal*, and a very favourable opinion was expressed of the remedy so employed.

In October, 1852, Mr. Hayward of Liverpool, in a brief communication to the *Lancet*, stated that he had obtained most beneficial effects from the quinine treatment in 79 cases of fever, which he had attended in parochial and private practice; and in July, 1853, Dr. Gee and Mr. Eddowes, the Medical officers of the Liverpool Fever Hospital, whose experience had previously been referred to by Dr. Dundas, reported the results of their use of quinine, in 88 cases, as highly satisfactory.

In January, 1853, Dr. Barclay communicated to the *Medical Times and Gazette* a carefully prepared report of this mode of treatment as he had observed it in St. George's Hospital; comparing the duration of the cases of fever treated with quinine, with that of those in which the ordinary methods had been followed, and he arrived at the conclusion that the former plan possessed no obvious advantages.

In the April number of the same volume, which contains Dr. Barclay's paper, there is a report from Mr. Fletcher, the Surgeon to the Manchester Union Fever Wards, giving the results of his trial of Dr. Dundas's treatment in 80 cases, and he expresses the opinion that when the fever is uncomplicated, the remedy is highly beneficial. He stated that where there is a tendency to bowel complication, the early administration of quinine checks, if it does not cut short the disease, but when the complication is well established, whether pneumonic ulceration of the bowels, or cerebral congestion, the remedy does little good.

The method of treatment adopted by Dr. Dundas, is as follows:—an emetic is first administered, and then ten grains of quinine are given every two hours till the symptoms subside, or till tinnitus aurium or deafness supervene, when the remedy should be stopped. After an interval of about eight hours, another emetic should be given; and, after a further period of eighteen or twenty-four hours, the quinine treatment should be recommenced. If there be restlessness or want of sleep, a full dose of liquor opii sedativus should be given, with a few drops of nitric acid; and wine and other support should be administered as required.

The period during which the large doses of quinine were usually repeated, in Dr. Dundas's practice, is not stated; but in two cases, which he quotes as examples of the beneficial operation of the remedy, three doses only were exhibited. The precise plan, however, recommended by Dr. Dundas has been more or less deviated from by all the Practitioners who have reported the results of their experience, both as regards the dose in which the quinine was administered, and the frequency with which the remedy was repeated.

Dr. Goolden gave in one case 10 grains every two hours for eighteen times, in another 8 grains every two hours; but he does not mention how often the latter one was repeated. Dr. Stevenson in one case administered 12 grains every three hours for twenty times, and afterwards continued 3-grain doses every four hours for about two days longer. Mr. Glazebrook gave in one case 8, in another 15, grains every two hours. Mr. Hayward exhibited the remedy in doses of 4 or 5 grains, and never exceeded 7 grains, every two hours. Dr. Gee and Mr. Eddowes gave from 3 to 10 grains every two or three hours. Dr. Bennett in one case administered 10 grains every two hours for five times; in another, at first 10 grains every two hours for seven times, afterwards 5 grains at the same intervals for five times; in a third case, he gave 10 grains every two hours for six times, and then, at first 10, and afterwards 13, grains for a dose, at the same

periods; but the time during which the remedy was continued is not mentioned. Dr. M'Evers exhibited the remedy in the doses recommended by Dr. Dundas, giving in one case 10 grains every two hours for six times in one day, and then every three hours for four other times; in another case every two hours for three times in one day, and the following day three other doses at the same intervals; in a third case 10 grains every two hours for five times in one day, for six times on the following day, and for four times on the third day. In a fourth case he gave 10 grains every two hours for two days, and during the third day the same dose every four hours. In the cases observed by Dr. Barclay, one patient took 10 grains every two hours for ten times, a second 20 grains every six hours for three times, two others 20 grains every four and every six hours for eight times; and a fifth 20 grains every three hours for nine times. Mr. Fletcher in one case gave 12 doses of 5 grains each to a girl of 12 years of age, at intervals of two hours; to an adult he gave 6 grains every three hours, but the precise number of doses given is not stated; and to a third patient, who died of pneumonia, he exhibited 6 grains every three hours for five days, after which antiphlogistic treatment was had recourse to.

The different writers who have alluded to the effects produced by the employment of the large doses of quinine agree generally in their reports. Dr. Dundas mentions that, after the exhibition of three or four doses, the specific influence of the drug is generally manifested by the occurrence of vertigo, tinnitus aurium, deafness, and diminished frequency of the pulse; to these symptoms Dr. Barclay and Dr. M'Evers add vomiting as of occasional occurrence; and the former gentleman mentions that in some cases the depressing influence of the drug on the heart and arteries are the only obvious effects. Confusion of ideas, torpor, and more or less coma, are also referred to, as resulting from the use of the remedy; but, as justly stated by Dr. Barclay, as these symptoms in many cases naturally ensue with the progress of fever, it is sometimes difficult to say how far they may have been referable to the one or other cause. Dr. M'Evers mentions the physiological effects of the quinine as manifested in one case at the end of three doses, and as recurring on the following day when the same quantity had been given. In a second case, they appeared after the exhibition of fifteen doses in three days, and in a third after twenty-four doses given in two days. The symptoms mentioned are similar to those which, as related by M. Briguet and others (quoted MM. Trousseau and Pidoux), were observed in the treatment of the typhoid fever of Paris by doses of quinine varying from 1 to 3 or 4 grammes (15·4 to 61·6 grains), exhibited during the day, according to the severity of the disease. M. Briguet arrived at the conclusion that quinine was useful in the ataxic form of typhoid fever, assuaging the watchfulness and delirium; but that it was prejudicial in the adynamic form, with great prostration of strength.

I have before mentioned that Dr. Dundas, in his earlier communications, spoke of the manifestation of the specific influence of the quinine, as indicating the necessity for the discontinuance of the drug, at least for a time; but Dr. Gee and Mr. Eddowes do not regard the occurrence of tinnitus aurium and deafness as always requiring the suspension of the remedy; and Dr. Dundas, in a subsequent allusion to their opinion on this point, seems disposed to concur with them.

The class of cases in which the quinine treatment was tried by the gentlemen to whose reports I have referred, appears to have differed considerably. Dr. Goolden states that the eight cases he mentions all presented symptoms of typhus gravior. In Dr. Bennett's patients the fever was in two of the typhoid and in seven of the typhus form. Mr. Hayward's cases are stated to have been all of the typhoid type. Dr. Gee's and Mr. Eddowes' were both typhus and typhoid. Dr. M'Evers' were maculated typhus. Dr. Barclay's were one, or perhaps two, cases of typhus and sixteen cases of typhoid; and Mr. Fletcher's cases were typhoid.

The results of the treatment in the practice of these different gentlemen were also very various, but it will be observed that they bear no relation to the dose in which the remedy was employed, nor to the frequency of its exhibition; some of those who most exactly followed Dr. Dundas's plans having met with unsatisfactory results, while others, who have reported most favourably of the treatment, administered the remedy in much smaller doses and at longer intervals. Mr. Hayward states, that he lost only two patients, and these were children, who had taken the remedy very irregularly; thus he lost only one patient in 39½, or 2·5 per cent., while, in the practice of Dr. Gee and Mr. Eddowes, 13 cases proved fatal, or 1 in 6⅔rds nearly, or 14·7 per cent., a rate of mortality high, even with the large proportion of complicated cases which these gentlemen report to have been included in the cases treated. Dr. Goolden's and Dr. M'Evers' patients all recovered; of Dr. Bennett's cases, two, one of typhoid and one of typhus, died; of the cases reported upon by Dr. Barclay, two also proved fatal. The mortality among the patients treated by Mr. Fletcher is not stated.

The theory on which Dr. Dundas bases his treatment is: 1st. That intermittent, remittent, and continued fevers are mere varieties of the same disease; and that as bark will generally arrest the former affections, it "ought to, and will, generally, arrest" typhus. Though, as an ague will sometimes resist for many days the employment of quinine and afterwards yield, it may be expected to be so also with typhus; and 2ndly, that when quinine is administered in large doses in typhus, if not curative, it is "never followed by the slightest ill effects."

It will thus be seen that Dr. Dundas exhibits quinine in fever, not merely as a tonic, with the view of effecting a general improvement in the symptoms, or as an auxiliary to other treatment, as bark was formerly given by various Physicians, and as quinine has more recently been employed in small doses; but that he claims for it the power of cutting short the disease, and that not only in one particular form of fever, or under certain peculiar circumstances, but in all cases. He believes, indeed, that by its use "the time approaches when the treatment of typhus fever, after ages of vacillation, will be established on the same sure and satisfactory basis as that on which the treatment of ague now rests."

The questions, therefore, which require consideration are:—1st. Whether quinine, when administered in large and frequently repeated doses, does possess the power of cutting short an attack of fever; and, 2nd. Whether, when so exhibited, its use is otherwise objectionable.

It is not necessary, in discussing these questions, to inquire how far the theory upon which Dr. Dundas bases his treatment is correct; but it may safely be contended, that a generalization so sweeping as that which he makes, requires to be supported by other and more satisfactory evidence than a simple appeal to the writer's experience. The observations which have of late years been so carefully collected in various localities are opposed to this view, and can only be set aside by still more extensive and equally accurate investigations. For my own part, after having paid much attention to what has been written on both sides of the question, and having carefully observed the several forms of fever which fall under our notice, in this and the neighbouring countries, in the localities which afford the best opportunities for studying their peculiarities—Edinburgh, Paris, and London—I have entirely adopted the view that typhus and typhoid are specifically distinct diseases. With remittent and relapsing fevers, from their comparative infrequency, I am less familiar, and am in doubt what relation those affections bear to typhoid on the one hand, and to tropical fevers on the other.

The views which we may adopt on these points are however unimportant, as regards the inquiry into the power of quinine in arresting the progress of the continued fevers of this country, embracing under that term typhus and typhoid; for, though Dr. Dundas contends for the identity of those affections with tropical fevers, as an argument in favour of their being arrested by treatment, and disavows any idea that the specific fevers attended with eruption can be so checked, we know that even those affections are capable of being arrested and modified by peculiar states of system, and, if so influenced, it may be contended that they might also be amenable to the influence of remedies. If this can be established in reference to the eruptive fevers, there can be little doubt that the power capable of being exerted over the common continued fevers is still greater.

1st. Attacks of measles, or small-pox, or, to a less degree, of scarlet fever, give, in a large proportion of cases, immunity from subsequent seizures, and most probably attacks of typhus and typhoid possess the same power. Vaccination generally prevents the subsequent occurrence of variola. These results must be dependent upon the production of a change in the

constitution which renders it altogether insusceptible to the influence of the virus.

2nd. When previous attacks of these affections do not prevent subsequent seizures, the second attacks are very generally mild, and only of short duration. Vaccination, when it does not protect the patient from variola, usually lessens the severity of that disease; or, what affords a still more obvious proof of its influence, after the symptoms have proceeded, often with violence, to a certain point, causes the sudden and entire subsidence of the disease. In these cases the change produced by the previous attacks, while it does not render the constitution insusceptible to the virus, prevents the disease being fully developed, or, in other words, renders it abortive.

3rd. We not unfrequently observe persons who have never previously had a given contagious disease, on being exposed to the influence of its virus, suffer from febrile attacks, which, though at first threatening, soon subside, and without presenting any specific characters. Such is often the case with children in schools where scarlet fever or other febrile disease is prevailing; with patients in wards containing fever cases, or with students attending hospital practice. In these instances, from some peculiarity of constitution, with the nature of which we are entirely ignorant, the system is not wholly insusceptible to the virus, but the disease is incapable of being fully developed.

In each of these cases, the results of disease, or of individual peculiarity, are analogous to the effects which may be supposed to be produced by remedies employed as prophylactics, or with the view of arresting diseased action already commenced. It is true that the analogy is not precise, for in the former cases, the peculiarity of constitution, whether natural or acquired, exists before the receipt of the virus; whereas, in the latter, the remedy must generally be exhibited after exposure to contagion, or even after the virus has already begun to manifest itself. There seems, however, sufficient reason to believe that what is, in these instances, accomplished by natural causes, might also be effected by the employment of remedial agents. The analogy is still closer as regards the influence often exerted by vaccine introduced into the system, after exposure to the contagion of variola, in either arresting the progress of the disease, or materially lessening its severity. Though, therefore, we do not at present know any remedy which can certainly be referred to, as possessing the power of arresting the progress of a specific febrile disease, there is nothing unphilosophical in our seeking to obtain such; and if this be granted as to the specific diseases, it will be much more readily admitted as to the ordinary continued fevers. The assertion that "we can guide, not cure a fever," is, indeed, a mere expression of the extent of our present practical knowledge, not a rule which should be allowed to deter us from the search to extend it. The question as to whether continued fever be, or be not, capable of arrest, is one which is fairly open to investigation, and which must be decided, not on theoretical grounds, but by experimental researches into the operation of remedies, which may be supposed to possess the power of checking the disease.

In prosecuting such experimental investigations we may employ two methods:—

1st. We may have recourse to the special treatment in a portion of the cases which come under our care, and follow the ordinary method with the remainder, without reference to the particular type or character of the two sets of cases. We may then estimate the respective advantages of the modes of treatment pursued, by the relative duration and mortality of the disease under the two systems,—or,

2ndly. We may employ the treatment only in cases which have already assumed a definite form, with the ordinary course and progress of which we are familiar. We can, therefore, by carefully watching the phenomena of the disease, and the operation of the remedy, judge how far its effects are beneficial.

In following both these methods there are difficulties to contend with, for we can never wholly confine ourselves to the use of one remedy; and consequently are apt to be misled in ascribing effects to its use which are due to other causes, but there are also special objections which apply to each plan.

1. In employing the first plan, it is necessary that the two sets of cases compared should be as nearly similar as possible. The ages and sexes of the patients, the periods of the attack at which the treatment is commenced, and the intensity of the disease, should all correspond. The observations should also be collected in the same locality, in the same sphere of practice, and during the same period. All these circumstances materially influence the rate of mortality in fevers, independently of the treatment to which the cases are subjected.

The observations of Mr. Hayward, and those of Dr. Gee and Mr. Eddowes, afford examples of the very different results which may be obtained from similar treatment in the same locality, but under different circumstances. The former gentleman, it will be remembered, had only a mortality of 2·5 per cent. among the cases of fever which he treated with quinine, while the latter lost 14·7 per cent. of their cases. These different results are, however, at once understood, when it is known that Mr. Hayward's observations were collected in parochial and private practice;—Dr. Gee's and Mr. Eddowes' in a fever hospital. The practice of the former gentleman, therefore, included cases of all degrees of intensity, while the cases treated by the latter were necessarily such as were selected for their severity, to be sent to the hospital. We are all of us familiar with the different types of fever in different localities and at different periods, and thus we obtain very various results while pursuing similar plans of treatment; and it is well known that the mortality at the commencement of an epidemic exceeds that at its decline. It is necessary, therefore, in investigating the power of any remedy or the advantages of any system of treatment, that the cases treated should be similar in all these circumstances before we can safely subject our observations to analysis, or depend upon the inferences which we may deduce from them. Provided, however, the sets of cases do correspond, the inferences founded upon them possess considerable exactitude; but there are still objections which apply to this plan, and which can only be avoided by adopting the second method, or by administering the remedy in cases of fever, the precise form and type of which are ascertained.

1st. It is impossible to predict, at the commencement of an attack of fever, what will be its duration, and consequently to decide, if the disease subside suddenly, whether it have done so from the effect of the remedy employed, or only in accordance with the natural course.

2ndly. Whether we suppose the difference between the typhus and typhoid fevers to be truly specific or only typical, they are such as must certainly affect the curability of the disease; and it is, therefore, quite possible that a remedy which may be very useful in the one form, may be valueless, or even injurious, in the other.

3rdly. The different forms of fever are constantly modified by a variety of different causes, and are liable to various complications, which may all affect the influence which any given remedy may exert. Thus, owing to accidental circumstances, we may obtain results from a given system of treatment which would be entirely erroneous when applied to another set of cases. We avoid these sources of error by adopting the second method of investigation, or by watching the effects of the remedy in cases which have already assumed definite characters. If, however, we were only to employ the treatment in such cases, we should be testing its power of checking the disease, under the most unfavourable circumstances; for it is justly contended by Dr. Dundas, that the probability of our arresting the progress of an attack of fever will be greater the earlier the remedy is had recourse to. This supposition is in accordance with what we know of the power of vaccine in preventing small-pox. Thus, if vaccination be practised immediately a person is exposed to the contagion of variola, it will often take effect, and either check or mitigate the disease; whereas, if deferred till a later period, the influence of the vaccine is entirely resisted and the variola runs its course unmodified.

The only means of avoiding all these various sources of error, is to employ both methods of investigation, and, indeed, while in some cases we have a choice of the plan which we may adopt, in others we have but one course open to us. In private practice we generally see our patients at an early period, and may at once exhibit the remedy without waiting for the disease more fully to develop itself. In hospitals, on the contrary, we can rarely commence our treatment till after the disease has been several days in progress, when the chain of diseased action has fully manifested itself, and thus the second plan is that which is alone capable of being followed.

In the following portion of this Paper, I propose to relate the results of the employment of the quinine treatment in fever, both as deduced from the records of St. Thomas's Hospital, and as observed by myself, in cases in which I have followed, more or less exactly, Dr. Dundas's mode of treatment.

[To be continued.]

JERSEY HOSPITAL REPORTS.

By G. M. JONES, Esq.

WEB-LIKE CICATRIX AFTER A SEVERE BURN, BY WHICH THE RIGHT ARM AND SIDE WERE UNITED, SUCCESSFULLY TREATED YEARS AFTER THE ACCIDENT.

By some persons this case may not be deemed of sufficient importance to form one of a series of Hospital Reports, but there are many who, having experienced the difficulty of preventing contraction after the cicatrization from burns, and the consequent partial, if not total, usclessness of the affected limb, may find the following statement not devoid of interest.

John Hall, aged 9, had his chest, right arm, and back severely burnt by boiling water in January, 1850. He remained dangerously ill for several weeks, and many months elapsed before the healing process was accomplished. It appears that at this time very little contraction existed, but by the end of the year it had gradually increased, and his arm presented then as it did on his admission into the Hospital (June 9, 1854) the following appearance:—A firm, tense cicatrix, with a thick rounded margin, binds the arm firmly to the side; it extends from the armpit downwards to rather more than an inch below the bend of the elbow. This joint has but very limited motion, while that of the shoulder is almost imperceptible. For more than three years the boy has only been able to use his hand at arm's length. He can raise weights, etc. The day after his admission the following operation was performed.

The cicatrized parts connecting the arm with the side were divided upwards as high as was deemed prudent, the situation of the large vessels and nerves serving as a guide as to how far the incision might be made without incurring danger. The cicatrix was then carefully removed through its entire divided length, and those edges which could be approximated without much difficulty were kept together by sutures. Three or four narrow adhesive straps were then applied near each suture to lessen their power on the stretched integuments, and pledgets of lint moistened in tepid water were placed along the side and arm. Rejecting the various complicated surgical appliances which might have been used to counteract the powerful opposition excited by the muscles to the free movements of the arm, and remembering the important rule to apply the smallest possible amount of force capable of accomplishing the desired end, an instrument was devised which I will endeavour to explain. It consisted of two semicircles of steel, thickly padded. That which encircled the waist was an ordinary truss-spring, to the concavity of which was attached the male and female screw apparatus taken from one of Armstrong's fracture machines. Between the screw and the spring was fixed a ball and socket, a kind of universal joint. The smaller semicircle which embraced the upper arm was also provided with the same kind of joint. A strap and buckle at the extremity of each semicircle held it on the arm and waist respectively, while, to prevent the latter from falling downwards, straps, in the form of braces, were thrown across the shoulders, and served the purpose of a suspensor. Thus the requisite amount of traction on the arm from the side could be most effectually and gradually obtained by propelling the screw out of its case, the fineness of its spiral permitting its being so propelled to any desired extent.

Several months elapsed before the healing process was accomplished, during which period the local treatment was occasionally varied, and, as after the operation there still remained in the vicinity of the arm-pit much substance which it would have been dangerous to divide or remove, special attention was almost daily directed to this part. The knife had, on more than one occasion to be employed in removing indurated edges, while the free and frequent use of caustic and sulphate of copper destroyed those parts which offered resistance to the natural movements of the arm. After the whole surface was healed, the apparatus already described continued to be used for several months, and even now the boy's father often obliges him to suspend the whole weight of his body by the arm on a ladder.

I saw the patient this day, October 9, sixteen months after the operation, and find that he possesses equal power in the right arm as in the other, and that no difference of any kind can be perceived in the movements of the two.

Remarks.—In giving a brief history of this case I do not wish to be supposed to lay claim to originality with regard to the operation itself, for, as far back as 1813, Henry Earle performed one substantially the same, and recommended its further adoption. His case terminated successfully, but the contraction was principally restricted to the forearm and elbow, consequently a splint was sufficient to bind down the whole limb firmly; nor was the entire cicatrix removed—a triangular flap being retained with the idea that it "might prove useful in accelerating the healing of so extensive a wound." This, however, sloughed, which led the operator to recommend its entire removal in similar cases. Probably his suggestion has been followed by others, as it was by South, in 1843-44, in a very formidable case of contraction; and, if my memory does not fail me, with signal advantage. There are, perhaps, no cases in Surgery which have been subjected to more opposite modes of treatment than burns and scalds; and plans diametrically at variance have been advocated by men of the first eminence in the Profession. In proof of this, while Earle and South recommend the entire removal of the cicatrix, Dupuytren, in his "Leçons Orales de Clinique Chirurgicale," objects strongly to its total removal, as a proceeding fraught with the utmost danger, and threatening serious consequences. My experience is much too limited to enable me to give a decided opinion on this point, but it is certain that in all the cases where I have only divided the cicatrix, and made use of such appliances as appeared necessary, either total failure or very partial success has resulted; while in the only instance in which I have removed it altogether, a complete cure has been the satisfactory termination. One very important point must be kept in view—as well might we neglect the after-treatment in capital operations as omit to employ mechanical means after the removal of the cicatrix. The one made use of in this case tended quite as much to bring about the desired result as the operation itself—it kept the arm pendulum-like, in constant motion, and, although this certainly prevented an apparent speedy recovery, it was the means of effecting a permanent cure. I fear that too often the anxiety of relations and friends (to say nothing of the wish of the Surgeon to witness a healed surface) leads us to accelerate as much as possible a process which a few months prove to result in hideous deformity, if not in the entire uselessness of a limb.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING NOVEMBER.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the "Dreadnought" Seamen's Hospital.

LITHOTOMY.

Case 4 of last report (Mr. Borlase Childs') has since resulted in recovery.

Number of cases 9; recovered 6; died 3.

Case 1.—A healthy boy, aged 8, under the care of Mr. Moore, in the Middlesex. A stone, weighing 3iij., was removed, and good recovery followed. *Case* 2.—A boy, aged nearly 3, in fair health, under the care of Mr. Canton, in the

Charing-cross. Two stones, the size of nuts, were removed. Recovered well. *Case* 3.—A healthy man, aged 58, from the country, under the care of Mr. Birkett, in Guy's. The stone was believed to be very large, and, the bladder being very irritable, lithotrity was not tried. A large, lithic acid calculus was removed, and, excepting a very slight hæmorrhage on the sixth day, recovery without a drawback followed. *Case* 4.—A healthy boy, aged 9, under the care of Mr. Birkett, in Guy's, having suffered from stone for five or six years. A lithic-acid stone removed. Recovery without a bad symptom. *Case* 5.—A healthy boy, aged 7, under the care of Mr. Solly, in St. Thomas's. The usual operation. Well in three weeks. *Case* 6.—A healthy boy, aged 5, under the care of Mr. Simon, in St. Thomas's. Recovered well. *Case* 7.—A boy, aged 8, in fair health, under the care of Mr. Prescott Hewett, in St. George's, having suffered from stone for six years. Three stones, consisting of lithic acid, coated with phosphates, and about the size of large marbles, were removed. Recovered well. *Case* 8.—A feeble man, aged 68, under the care of Mr. Erichsen, in University College. Three years before Mr. Erichsen had performed lithotomy, and had subsequently much trouble in procuring the closure of a fistula which remained. The man had continued without symptoms of stone for two years and a-half after the operation, and he had suffered nothing indicative of renal calculus. The cicatrix being dense and hard, Mr. Erichsen did not incline to again make the incisions on the left side, and he determined to perform the urethral operation, recently known as Allarton's. This was done, and a small stone removed. Owing to the adhesions between the bladder and rectum the latter was slightly wounded in the incisions. The man did fairly for some time, but subsequently sank and died on the twelfth day. The autopsy showed extensive disorganization of both kidneys from old disease, and some recent pyelitis. In the pelvis of one kidney were a large number of calculi. The parts about the urethra and bladder were not inflamed, but the bladder itself contained a small stone which had possibly passed down the ureter subsequent to the operation. The prostatic urethra which, according to the theory of the operation, should have been dilated merely, was lacerated in several parts. (The specimens have been exhibited by Mr. Erichsen before the Pathological Society). *Case* 9.—A lad, aged 13, apparently in good health, but accustomed to drink spirits, under the care of Mr. Adams, in the London. Symptoms of stone had existed for some years. The usual operation was performed, and a large oval stone removed. On the day following, the boy had a rigor, and much tenderness over the hypogastrium. Leeches and opium were used. Subsequently, the signs of peritonitis were very ill marked. Death took place on the sixth day. The autopsy showed the bladder, and parts concerned in the incision, in a healthy condition. Both kidneys were much reduced in size by the cicatrices consequent on former disease. There was universal peritonitis, which was least marked in the pelvic cavity, and most so about the liver, etc. In the latter region, a thick layer of soft lymph covered the viscera. *Case* 10.—A man, aged 61, in tolerable health, under the care of Mr. Coulson in St. Mary's. Lithotrity was proposed, but the stone being found to be large, and the bladder very irritable, was not proceeded with. Symptoms had existed two years, and for two months past had been very severe. The usual lateral operation was performed, but, owing to the size of the stone, it was found necessary to incise both sides of the prostate, and also to further enlarge the external wound. A lithotrite was used by the wound, but neither with it, or with the forceps, could the stone be broken. After a little delay, a large oval stone, weighing nearly four ounces, and measuring two inches and three-quarters across, was extracted. A laceration of the rectum having occurred in the removal, Mr. Coulson adopted the practice of laying the whole open into the wound. Stimuli were freely given afterwards, and with good effect. During the first week, the man did well, but subsequently an attack of diarrhœa occurred, from which he sank on the tenth day. At the autopsy was found, as had been expected, extensive disease of the heart. The parts concerned in the incisions were in a good condition, and the capsule of the prostate was entire. The middle lobe of the prostate was enlarged, and its whole structure was extremely hard and rigid, its width being also unusually narrow.

LITHOTRITY.

A boy, aged 10, is under Mr. Curling's care, in the London, on whom during the past two months repeated lithotrity operations have been performed. The fragments of a stone, at least the size of a nutmeg, consisting of phosphatic crust and a mulberry nucleus, have been passed, and with no bad symptoms. On several occasions a fragment has been impacted in the urethra for a time, but incisions have never been necessary. It is believed that the bladder is now free, as the last few soundings have detected nothing.

LITHOTOMY IN THE FEMALE.

A woman, aged 26, was admitted, under the care of Mr. Erichsen, into University College. She had had some symptoms of stone from childhood, but the presence of one was not suspected until, during her confinement, its large size was found to be a hindrance to the passage of the child's head. Craniotomy was necessary to delivery. After the confinement great irritation of the bladder followed, and the woman sank into a feeble state. The operation for its removal was performed three weeks after it. Lithotomy, by free incision into the vagina, was the plan selected, and a large oval stone was easily removed. The stone measured 3¼ inches by 2½. After the operation, she remained for some time extremely weak; subsequently she rallied somewhat, but death from exhaustion occurred on the eighth day. At the autopsy, the wound was found in a healthy condition. Both ureters were much dilated, and the left kidney had been quite destroyed by old disease.

HERNIOTOMY.

Cases 6, 7, and 8, left under treatment by last month's report, have resulted in recovery. In *Case* 5, the bowel subsequently gave way into the wound, and an artificial anus resulted. Death from peritonitis followed on the nineteenth day.

Number of cases, 9; recovered, 3; under treatment, 4; died, 2.

Case 1.—A woman, aged 50, under the care of Mr. Stanley, in St. Bartholomew's. Hernia, femoral, size of a walnut; strangulated forty-eight hours; sac not opened. Recovered. *Case* 2.—A man, aged 69, under the care of Mr. Solly, in St. Thomas's. Hernia, inguinal; strangulated two days; sac not opened. Recovered. *Case* 3.—A man, aged 49, under the care of Mr. Ure, in St. Mary's. He had been liable to scrotal hernia for twenty years. The gut had been down for three days, and had been irreducible, but the symptoms of strangulation had not been present. When admitted, the tumour was not tender, nor was there any material constitutional disturbance. A fair trial of taxis, with the aid of warm baths, opium, etc. having been made without result, it was determined to operate. The sac having been opened, a portion of the colon was found firmly adherent to its lower part. The adhesions having been separated, reduction was effected without division of the stricture. The man recovered well. *Case* 4.—A woman, aged 51, under the care of Mr. Quain, in University College. Hernia, femoral; strangulated two days; sac opened. The sac contained much serum, and a portion of gut, of a dark-brown colour. Doing well. *Case* 5.—A woman, aged 32, the subject of phthisis, under the care of Mr. Quain, in University College. Hernia, femoral; strangulated two days; sac opened. A small portion of gut, much congested, and adherent to the sac, was found. Doing well. *Case* 6.—A woman, aged 44, under the care of Mr. Erichsen, in University College. Hernia, femoral; strangulated thirty-six hours; sac not opened. Doing well. *Case* 7.—A man, aged 56, a porter, was admitted, under the care of Mr. Adams, into the London. The subject of hernia for many years, he had yet never worn a truss. On October 17, he had a fall from some steps, after which he found his hernia of considerable size, irreducible, and in great pain. Whether or not it was down at the time of the accident, he did not know. Soon afterwards vomiting occurred, and the symptoms becoming aggravated during the night, he sought admission next morning. He then complained of great pain in the tumour; vomited often; had an anxious countenance, and quick, feeble pulse. The hernia was a large scrotal one, on the right side; it had distinct impulse on coughing, and might be somewhat diminished in size by steady application of the pressure, but returned immediately to its former dimensions when the hand was removed. Mr. Curling and Mr. Ward saw him, and ordered leeches to the part and full doses of opium. When

Mr. Adams visited him a few hours later the symptoms were nowise relieved, and it was determined to operate. The parts between the skin and the sac were found much thickened and bruised. The sac having been carefully opened, a quantity of adherent small intestine was exposed. In attempting to separate these adhesions the gut gave way, and feculent matters escaped. The neck of the sac being quite firm, nothing further was done, the bowel being left *in situ*. Fæces afterwards passed freely from the wound. The man's condition was very low, but under the free administration of nutrient stimuli he soon began to rally. On November 3 the daily use of nutrient enemata was commenced, and on the 9th, for the first time, a feculent motion was passed per anum. The wound has since healed, excepting a fistula entering directly into the gut, through which as yet free escape of fæces takes place. *Case* 8.—A man, aged 64, under the care of Mr. Johnson, in St. George's. Hernia femoral, strangulated five days. The sac was opened, and the gut was found in a gangrenous condition, so soft that it broke down during handling. The man died a few hours after the operation. *Case* 9.—A woman, aged 70, hernia femoral, strangulated forty hours; sac not opened. The wound healed, but the patient died six weeks after the operation with symptoms of acute peritonitis. The gut was found to have given way above a scar which had been left by the sloughing of the strangulated portion.

AMPUTATIONS.

Of the five cases left under treatment by last month's report, three have recovered, and two remain under care.

Number of cases, 17; recovered, 6; under treatment, 4; died, 7.

Of the Thigh.—Case 1.—A boy, aged 9, in fair health, under the care of Mr. Cock, in Guy's, on account of disease of the knee, of three years' duration. Amputation in lower third. Recovery. *Case* 2.—A man, aged 34, admitted six months ago into St. George's, under the care of Mr. Hawkins, on account of compound fracture of the leg. Erysipelas followed, and disease of the knee-joint resulted. At length it became necessary to amputate. Recovered. *Case* 3.—A lad, aged 19, under the care of Mr. Hawkins, in St. George's, on account of diseased knee. Amputation. Doing well. *Case* 4.—A man, aged 39, under the care of Mr. Prescott Hewett, in St. George's, on account of injury to the thigh from the ramrod of a small cannon. The bone had been shattered, and the femoral vessels torn; much blood had been lost. Primary amputation. Doing well. *Case* 5.—A lad, aged 6, in good health, under the care of Mr. Adams, in the London, having had his left leg crushed by a wagon wheel. Primary circular amputation in lower third. The stump is now healed, excepting in the centre where the bone projects. Exfoliation will have to take place. *Case* 6.—A woman in fair health, under the care of Mr. Coulson, in St. Mary's, on account of anchylosis of the knee in a contracted position, the result of old disease. The amputation was performed solely for the removal of an encumbrance. For three weeks she made good progress, and the stump was fast healing. Subsequently she sank into a typhoid state, and death occurred at the end of a month. There were no indications of pyæmia. *Case* 7.—A woman, aged 29, under the care of Mr. Ure, in St. Mary's, on account of diseased knee. She had refused amputation for some time, and was, at the time she consented, extremely reduced by pain, suppuration, and diarrhœa. Almost no blood was lost during the operation, but exhaustion continued afterwards, and death took place on the second day. *Case* 8.—A man, aged 29, hectic and very ill, under the care of Mr. Canton, in the Charing Cross, on account of diseased knee. After the operation symptoms of acute phthisis developed themselves. The stump, which had nearly healed, reopened and the bone protruded. Death from exhaustion occurred in the sixth week. No autopsy.

Of the Leg.—Case 9.—A man aged 30, under the care of Mr. Ure, in St. Mary's. Amputation at the ankle joint had been performed eight months ago, and the stump being nearly healed at the end of four months he left the Hospital. Subsequently the stump reopened, and there being disease of the bones, it was determined to amputate in the lower third of the leg. Doing well. *Case* 10.—A woman, aged 36, under Mr. Paget's care in St. Bartholomew's, on account of ulceration over an old and badly united fracture. The fracture occurred eleven years ago, and for three years the ulcer had been unhealed. She was of intemperate habits but in fair health. After the amputation she was threatened with delirium tremens, but at length made a good recovery. *Case* 11.—A man, aged 27, under Mr. Poland's care in Guy's, on account of compound fracture of the leg. Primary amputation in lower third. Death on the fourth day. At the autopsy there was found a laceration of the liver and separation of the sacrum, from both iliac bones, with separation also of the symphisis pubis.

Of the Foot.—Case 12.—A seaman, aged 19, in good health, under the care of Mr. Busk, in the *Dreadnought*, on account of disease of tarsus and metatarsus of right foot. Pirogoff's amputation, at the ankle-joint, was performed, the posterior third of the os calcis being left, and turned up into apposition with the cut end of the tibia. The articular surface of the tibia and the two malleoli were sawn away. The bones fitted well. At present (two months after) the stump is a good and firm one, and almost entirely healed. No exfoliation has occurred, or is expected, but there was for a few weeks troublesome suppuration among the tendons of the peroneal and tibial muscles. The stump gives a leg about three-fourths of an inch shorter than the other. The man is now able to walk about. *Case* 13.—A woman, aged 25, under the care of Mr. Johnson, in St. George's, on account of diseased tarsus. She was the subject of incipient phthisis, and much out of health. Symes' amputation at the ankle-joint was performed, the malleoli and articular surface of tibia being sawn away. Erysipelas followed, and subsequently an abscess formed in the cellular tissue of the back. Death from exhaustion (pyæmia?) took place on the thirty-sixth day. The autopsy did not show any secondary deposits, but there was a vomica in one lung, and many scattered tubercles. *Case* 14.—A man, aged 45, in tolerably good health, under the care of Mr. Fergusson, in King's College, on account of diseased tarsus. Symes' amputation at the ankle-joint was performed. Three-fourths of the flap sloughed away, and the man sank from exhaustion on the fifteenth day.

Of the Upper Extremity.—Case 15.—A lad, aged 15, of good health, under the care of Mr. Hancock, in Charing Cross, on account of severely crushed arm. Primary amputation at the shoulder-joint. The lad was in collapse from most profuse hæmorrhage, and sank three hours after the operation. Chloroform was given. By the use of brandy, he had rallied a little just before the amputation. The accident had occurred in a powder explosion, and had been attended by much shock. *Case* 16.—A man, aged 22, consumptive and exhausted, under the care of Mr. Paget, in St. Bartholomew's, on account of diseased carpus. Free incisions had been practised some months before, but, the disease advancing, it was decided to amputate through the forearm. The man continued very feeble after the operation, and when he left the Hospital the stump was not healed. *Case* 17.—A healthy lad, aged 17, under the care of Mr. Lloyd, in St. Bartholomew's, having had his hand smashed by the bursting of a pistol. Primary circular amputation just above the wrist. Recovery without a bad symptom.

LIGATURE OF ARTERIES.

Mr. Lane's case in St. Mary's, reported last month, is doing well. The ligature came away on the forty-fifth day.

Case 1.—A man, aged 37, under Mr. Fergusson's care, in King's College Hospital, on account of aneurism of the left common femoral artery. Ligature of the external iliac. Death from pleurisy on the eighth day. (For detailed report, see *Medical Times and Gazette* for Dec. 8, page 567.)

Cases 2 and 3.—In these the radial was tied for wound; both did well.

Case 4.—A man, aged 35, under care in the London, on account of wound of the radial artery. Mr. Corner (House-Surgeon) enlarged the wound, and tied both ends of the vessel. The man subsequently died from erysipelas of the thigh, attended by delirium tremens. The wound in the forearm was very unhealthy, but there had been no bleeding.

Cases 5, 6, and 7.—In two of these the radial, and in one the ulnar, artery was tied on account of wound. All have done well.

TRACHEOTOMY.

Case 1.—A boy, aged 12, under care in a Medical ward, in the London, on account of phthisis, became affected with inflammatory œdema of the glottis. In a state of very

perilous dyspnœa, and when he appeared to be fast sinking, tracheotomy was performed by Mr. Corner, the House-Surgeon. Immediate and great relief was obtained, but death from exhaustion occurred on the third day afterwards. The autopsy showed extensive œdema of the glottis, pharynx, and soft palate, and much tuberculous disorganization of the lungs. *Case* 2.—A child, aged 2, under Dr. Jenner's care, in the Children's Hospital, on account of croup. The dyspnœa becoming urgent, tracheotomy was performed by Mr. Athol Johnson. Considerable relief was obtained, but on the third day the child sank from bronchitis.

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

YORK COUNTY HOSPITAL.

LARGE GROWTH OF MEDULLARY CANCER IN THE CALF.—AMPUTATION.—RECOVERY.

(Communicated by W. D. HUSBAND, F.R.C.S. Eng., Surgeon to the Hospital.)

Christopher Foxley, aged 39, was admitted into the York County Hospital, under the care of Mr. Husband, Feb. 16, 1855.

He was brought to the Hospital on a stretcher, and presented the appearance of a man in the last stage of some exhausting disease. On inquiry, the following particulars were elicited: Is a shepherd, and has enjoyed uniformly good health until a few weeks previous to admission. Having experienced some degree of pain in the great toe of the left leg, he was next attacked by severe pain in the calf of the same leg, which gradually increased and became so severe as to compel him to discontinue his employment. The leg now began to enlarge, and soon acquired a considerable size. The tumour soon became so large as to occupy the whole of the calf, and was then punctured by his Medical attendant, but no fluid was evacuated. The pain, always severe and lancinating, now became more and more harassing, the tumour continued to enlarge, and from the situation of the opening a fungoid growth began to protrude, his strength declined, and, worn out by pain and sleepless nights, he determined, about thirteen weeks after the first appearance of the tumour, to become a patient in the Hospital.

On admission he was found to be extremely feeble, which he attributed to severe pain and want of rest for thirteen weeks. His countenance indicated rather anxiety and exhaustion than the usual dull leaden hue symptomatic of malignant disease. The leg was enormously swollen, and a soft pulpy tumour occupied the popliteal space, and extended downwards to the lower margin of the gastrocnemius muscle. The tumour was spheroidal in shape, and presented to the touch a peculiar softness so well described by Mr. Paget as conveying "a deceptive sense of the fluctuation of some thick liquid." The skin covering the greater part of the tumour was white and somewhat mottled, but on one portion, where the puncture had been made, an elevated growth of a darker colour, and evidently of a more vascular character, was superadded to the original morbid enlargement, and presented the appearance of that form of medullary cancer described by Mr. Hey under the name of fungus hæmatodes. No trace of the extension of the disease above the knee could be detected, nor could the most careful examination discover the existence of any visceral complication. There was some thickening of the structures at the posterior part of the thigh, and the femur itself, at the junction of the lower part of the upper third, seemed enlarged, but he persisted in ascribing this to a kick received from a horse some years ago. He has had no pain in this locality.

The man was exceedingly anxious that the limb should be removed and some relief obtained to his severe suffering. The uncertain result of the operation was fairly stated to him, and when he persisted in his request that amputation might be performed, as offering some hope of relief from suffering, it was determined to give him the chance.

February 20.—The patient was placed under the influence of chloroform, and the limb removed by the flap amputation through the thigh. The muscles were pale and flabby, but otherwise healthy. The femoral vein, however, was plugged by deposit of a very suspicious appearance, and as much of it as could be reached was removed, and the matter plugging it reserved for microscopical examination. The man lost very little blood, and bore the operation remarkably well.

On examining the removed limb it was found to present a very perfect specimen of medullary cancer. The greater portion was of a light grey colour, very soft, and easily crushed, and presented a remarkable similarity to fœtal brain. The cancer juice was very abundant. The smaller portion, which presented externally the fungoid character, was highly vascular, but was friable and easily torn. The whole substance of the calf seemed to have degenerated into medullary disease. The substance removed from the femoral vein presented under the microscope all the characters of the growth in the calf.

February 27.—The patient continues feeble, and no primary union has taken place in the stump, which looks pale and flabby. He is taking quinine, with generous diet, wine, porter, etc.

March 6.—The stump still continues to show no disposition to heal, but his general health has slightly improved.

March 13.—The condition of the stump is still very unsatisfactory; the muscles have retracted, and left a considerable length of bone exposed. The granulations are large, pale, and flabby; those near the bone bleed very readily on being touched. Continues to take support freely, and is ordered,—Tr. ferri sesquichl. gr. xx., ter in die, with cod-liver oil, etc.

April 1.—Health continues to improve, but the stump shows very little disposition to heal; end of bone threatens to exfoliate.

April 30.—Has continued to improve very much in health, so that he is getting quite fat. Stump now shows a disposition to heal, but the end of the bone, left after the exfoliation of its extremity, will not be covered by the granulating surface.

May 15.—General health has now become very good, and the stump has nearly healed around the protruding bone, which is evidently thickened, and rounded at the end, and covered with a pseudo-cartilaginous structure.

June 2.—As the soft parts have now entirely healed, leaving the enlarged bone protruding, Mr. Husband separated, with a catlin, the bone from the investing tissues, as far as its sound portion, and then sawed off about four inches of thickened bone, from which an exostosis on each side was growing. The operation was performed under chloroform, little blood was lost, and only one small artery required a ligature.

The stump healed readily after the last date, and the health continued to improve. The man left the Hospital on July 1, apparently quite well, and has remained so up to the present time (October 16).

This case presents some points of practical interest, especially in relation to the *vexata questio* of operation in cases of malignant growths. The case was a very unfavourable one, as the feeble condition of the patient, and the extension of the disease above the knee, as indicated by the presence in the femoral vein of medullary deposit, rendered even a temporary benefit from amputation very doubtful. For some time it was believed that the disease had recommenced in the stump, and so unfavourable was the appearance of the granulating surface, that no other opinion seemed tenable; but, with improved health, we had the satisfaction of witnessing a more healthy action in the stump, and in time, under the influence of tonic and nourishing treatment, and local astringents, of procuring nearly entire cicatrization of the soft parts. The protruding bone was, however, a serious obstacle to procuring a useful stump. It was no fault of the original operation, as abundant covering was left for the bone, but the muscles, showing no disposition to unite by the first intention, retracted so far, that no subsequent care could secure a covering for the bone; it was, however, easily removed, and retarded very slightly the convalescence of the patient. The bone, when removed, was found to be thickened, having two exostoses, one on each side, growing from it, and the end rounded and covered with smooth, cartilaginous-like substance, so that it very much resembled the head of the femur.

Although, then, the statistics of Paget, Walsh, Lebert, and other modern writers, and, I may add, the experience of most Surgeons, testify to the uncertain result of the removal of growths of medullary cancer; yet the result of this case, so

unpromising before the operation, and still more after the discovery of the condition of the femoral vein, would encourage us to give in cases, where the whole morbid growth, as far as ascertainable, can be removed, the chance of escape from a frightful death, or at all events, of a temporary relief from severe suffering, and of a prolongation of life. Such an operation, however, ought never to be undertaken, without a candid intimation to the sufferer, that only a temporary benefit may probably result; and we cannot promise that even the removal of a limb, with the entire apparent disease, can secure him from its further development. That we cannot, in any case, ascertain with certainty the limit of the disease, is clear from the case under review, as no indication of the condition of the vein was furnished, or could be afforded, in similar cases, until exposed to view by the operation; that, however, such condition, when ascertained, does not destroy all hope of benefit from the operation proceeding, is satisfactorily established by the successful result of this case. We have the authority of Mr. Paget, that "the effect of removing medullary cancer is, on the whole, an increased average duration of life;" and in this case, whatever may be the after-result, a life of suffering, soon to be terminated by death, was by a painless operation under chloroform, relieved, and the patient has since enjoyed several months of healthy and pleasurable existence.

[*Postscript.*—Since the above was in type, the subject of the case has rather suddenly died. From particulars which Mr. Husband has furnished to us it appears that death took place eight months after the amputation, and was apparently caused by acute pleuro-pneumonia. The man had remained in good health till within ten days of his death, and, to use the expression of Mr. Chapman, of Kirby Moorside, the Surgeon who attended him at his home, "had become quite plethoric." The last illness was characterized by cough, fever, great difficulty of breathing, expectoration of thin mucus, mixed with blood, and dulness over almost the whole left side of the chest. A moderate bleeding was practised, and mercury employed, but, in spite of these measures, the man sank rapidly. We are thus particular in stating the last symptoms, because, from permission to make an autopsy having been refused, some doubt respecting the real cause of death might still be entertained. In favour of the idea that the pneumonia was idiopathic, is the statement that the man had not only regained his health, but "had become plethoric," while, in an opposite direction, is the circumstance that he believed himself that, despite his good health, difficulty of breathing had been gradually increasing, almost from the date of his leaving the Hospital. On the whole it is, perhaps, the most probable that the chest symptoms were caused by cancer of the lung. How rapid the course of such an affection may sometimes be is well shown by a case in the Pathological Society's report, at page 633 of the last Volume. In it a patient, under the care of Dr. Barker, in St. Thomas's Hospital, died of primary cancer in the mediastinum, within five weeks of the first symptoms.] J. H.

NOTES AND QUERIES.

"He that questioneth much shall learn much."—*Bacon.*

No. 77.—Local Anæsthesia by Cold.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Seeing communications in your journal with respect to local anæsthesia by cold, I shall be glad to hear if any of your readers have found wounds produced under its influence heal by the first intention?

I have tried it in several cases, while resident Surgeon of the Royal Berks Hospital, and previously. In none did the wounds heal by the first intention; in many the parts frozen have afterwards sloughed; and in all, the cuticle was destroyed and afterwards peeled off. I am, etc.,

Royal Infirmary, Dundee, Dec. 27, 1855. Eubulus Williams, M.D.

No. 78.—Detection of Nitrate of Ammonia.

Sir,—Will any of your chemical readers refer me to the best process for detecting the nitrate of ammonia in well water? Since reading an article in your valuable Journal three months ago, I have been struck with the disagreeable proximity of my pump to the *cabinet* of my neighbour, and having heard that nitrate of ammonia has been detected in the water of London pumps situated near fat churchyards, I should like to try the tests on my own well, which, by-the-by, is famous for brewing purposes, as my London friends always testify when they taste my "October."

I am, etc. A Country Practitioner.

No. 79.—Death of Mary Wolstonecraft Godwin.

Sir,—Where can an account of the death of this celebrated female be met with? Our midwifery professor used to tell us that she died of retained placenta. I am, etc. B.

No. 80.—Diarrhœa Tubularis.

Sir,—I never met with this malady in man; in woman I have often. Pray tell me whether this exemption of the male sex is usual, or accidental to my experience?

I am, etc. A. B. C.

ANSWERS.

To No. 75.—Treatment of Porrigo Decalvans.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In reply to No. 75 of Notes and Queries, in your Number of Saturday, December 29, I am happy to inform M. B. that I have had a greater success in treating the Porrigo Decalvans by the following means than by any others I have tried:—

The whole calvarium must be shaved every four or five days, and carefully washed each night and morning with soft soap and soft water, and after each washing anointed with the ointment (*ut infra*), which should not be "plastered" on, but rubbed into the depilated spots with the finger.

A wig should be worn, and it is, to my mind, preferable to any less pervious covering for the head.

The mixture to be taken three times a-day, and steadily persisted in. The time of cure is very variable. The worst case I have had to treat came under my care on March 19, 1851; in two months it began to improve; and on May 20, 1852, I gave up all treatment, it being then cured completely. The patient was a boy, aged 6 years, who had suffered for two years previously, notwithstanding "all manner of treatment by doctors and others." The larger part of the occiput and nucha, with many patches on other parts of the head varying in size from ½ to 1½ inch in diameter, were entirely depilated, the skin being of a polished eburnated appearance.

When the hair was restored, it was coarser than natural, and a decided shade darker, which continues to such an extent as to define the porriginous spots even yet.

The diet I have directed for my patients was only restrictive in respect to "trash" of all kinds, and was nutritive and substantial, though void of stimulants.

The medicinal treatment I adopted with the above case was—

℞ Potassii iodidi pur. gr.v.
Potassæ liquoris ʒiss.
Tr. cardam. co. ʒi.
Aq. fontanæ ʒvijss. M.
Coch. mag. ter quotidie sumend.

℞ Axungiæ recent. ppt. ʒi.
Creosot. pur. ♏x.
Ol. limonis q. s. M.

The above plan has never failed with me, and whether "really rational" or not, I must leave to the determination of others.

May I be excused in stating that I have got rid of several very obstinate and chronic cases of Sycosis by daily pencillings with tinct. iodin. comp., after all other means have apparently failed. I am, etc. J. Burton.

Walsall, December 20, 1855.

Medical Students of the Paris Faculty.—The number of inscriptions or registrations for the Session 1855-6 is 966, that for the year 1854-5 having been 964. The number of first inscriptions this year is 180, and was last year but 151.

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Medical Times & Gazette.

SATURDAY, JANUARY 5.

THE NEW YEAR.

When a Medical Periodical, like the Medical Times and Gazette, experiences a career of calm and steady prosperity, there is very little room for any other language than that of congratulation upon the past, and of hope that an equal measure of success may attend our future progress. While war and rumours of war have prevailed, the year that has just expired has been one of profound peace for us. Thanks to our numerous contributors, we have been abundantly supplied with Professional information in every department, and from nearly every region of the civilized globe; and, indeed, our only regret has been that we have been compelled, from the crowded state of our pages, sometimes to decline valuable communications altogether; and, at other times, to postpone papers to which we would willingly have given immediate insertion. With regard to the Editorial department, we are not conscious of having, in any manner, compromised the dignity and honour of the Profession; nay, more, in protecting our common interests, it has been our lot to differ occasionally from some of our contemporaries, who seemed less anxious than ourselves to uphold that exalted character to which, even if we cannot all reach, we may be all allowed at least to aspire. In pursuing the course which we thought was demanded by the occasion, we have spoken boldly and fearlessly; but feeling that our object was only the common good, we have carefully abstained from personality, and have left to other journalists the use of weapons which we should deem it derogatory to employ.

The "Review" department, we think it will be generally admitted, has maintained the high character which it has so long held in this Journal; and we may confidently assert that, in the quality and quantity of our reviews, we are equalled by no other Medical Journal of the same size in existence. We do not maintain that our opinions of books are infallible; but we boldly declare that no fear, favour, affection, nor animosity is ever allowed to bias our judgment, and that every book is judged solely upon its merits.

The department which we have denominated "The Week," has been received with great favour, and is now a conspicuous feature in the Journal. It enables us to present to our readers the more prominent Medical news of the moment, without the prolixity necessarily attendant upon a long series of leading articles, but accompanied by such brief comments as circumstances seem to suggest.

Another feature which has marked the Journal during the past year, is the department headed "Notes and Queries," which has fully answered, or rather exceeded, our anticipations; and our Correspondents have liberally responded to our invitation, by contributing short matters of general interest in the way of question and answer, thus eliciting a great and varied amount of useful practical information upon very numerous topics. In reference to this department, we may remark to future contributors that long communications are, necessarily, inadmissible, as being at variance with the nature of the plan laid down; but that all short matters of general Professional interest will, as heretofore, obtain ready insertion.

During the ensuing year, we shall strive to preserve the position in every department which we have already attained, so that this Journal shall continue to be the accurate reflector of the Medical Science of the day. We may here repeat the observation we have made on former occasions, that our pages contain more Professional matter than any other Journal of the same size and pretensions. It is true that the *Lancet* has, including its Advertisements, numerically more pages, but in that Journal the Advertisements are allowed to encroach upon the body of the work to an extent which is not permitted by the proprietors of the *Medical Times and Gazette.*

We have at the present moment numerous communications from distinguished members of the Profession, many of which we hope in due season to present to our readers. The important subject of Clinical Medicine will be amply illustrated in our forthcoming numbers. We shall very shortly commence a course of Clinical Lectures delivered at Guy's Hospital by Dr. Barlow, one of the Physicians to that vast establishment; another by Dr. Hyde Salter, Assistant-Physician to the Charing Cross Hospital; and a Series of Lectures on the Diseases of the Abdomen by Dr. C. J. Hare, Assistant-Physician to University College Hospital. In addition to these, Dr. Todd will resume his valuable series of Clinical Lectures in March or April; and the lectures of Dr. Stokes, which have been interrupted from unavoidable circumstances, will, we hope, be shortly completed. We have felt that of late the Surgical element has somewhat preponderated in our pages; but we hope to make amends by this copious array of Medical talent. Among the Surgical subjects that will occupy our pages, we may announce the conclusion of Mr. Adams's Lectures on Orthopædic Surgery; and a course of Clinical Lectures on the Diseases of the Ear, illustrated by cases in St. Mary's Hospital, by Mr. Toynbee.

We regret the interruption of the Army and Navy Medical Reports, the publication of which has given so much satisfaction to our readers; but the causes which have led to the temporary discontinuance of this very important feature are readily

explained: First, the immense increase of official business, suddenly thrown upon all the War Departments, has necessarily prevented that arrangement and selection of materials which are essential before publication; and, secondly, although the course of the present war has unhappily been productive of accident and disease to a fearful extent, yet the laborious details of actual practice, and the hardships and sufferings of our brethren in the East, together with the total inability, in many instances, to procure writing materials in the trenches and on the field of battle, have wholly or partially precluded that accurate record of cases, which it is necessary to present to those who are reading at ease by their firesides at home.

With these hopes and anticipations for the coming year, we launch our bark again upon the tide; and if the same favouring gale as that which we have already experienced should still speed our course, we shall have no cause for regret, but much reason to be grateful.

THE FIVE POINTS OF THE SANITARY CHARTER.

In a late leading article, we spoke of the gigantic powers with which the new Metropolitan Board of Works is invested, and of the immense, we may say the fearful, responsibility which attends the discharge of the duty imposed on it by Parliament, of causing to be executed within the next five years the works necessary for the thorough drainage of London, and the diversion of the present noisome flow of sewage from that part of the Thames which runs through the Metropolis.

On all matters relating to the physical sciences, and more particularly where life and health are concerned, it is to the Medical Profession that the public ought to look for correct information and guidance. We, therefore, have never hesitated to stir up our brethren to discuss such matters themselves, and to take every opportunity that may offer for spreading information respecting them among all classes of society. At present, the responsibility of taking right measures or wrong does not rest with Government, nor with any body of irresponsible officials, but with the public—the ratepayers—through their immediate delegates, the vestrymen—and through the representatives sent by the vestries to the central Board of Works. Whatever measures, then, for the future may be adopted, will be greatly influenced by public opinion, and that public opinion we hold it to be the province of our brethren to influence and direct.

At present, as most of our readers are aware, a strong controversy is raging in the sanitary world on the subject of drainage generally, but more particularly relating to London. This controversy is ostensibly alleged to relate to certain questions as to the best size and material for drains and sewers, and as to the amount of water which will flow through pipes of a given calibre in a given time. But in this, as in most controversies, a variety of subjects of dispute is added, which gives real zest to the combat. Where the passions are excited, depend on it there is something at stake besides abstract truth. What was originally an engineering and hydraulic question becomes, in time, a question of personal animosity between the supporters of rival schemes, and a question as to who shall obtain the spoil, and share in the victory.

Now, we most humbly repudiate the idea of venturing to give an opinion on a question of the velocity of fluids or construction of tunnels, and we advise our Medical readers to do the same. But on the sanitary and chemical parts of the question we do claim to be heard; and we think we may fairly demand assent to the following propositions:—

1st. All sewage matter ought to be immediately removed from under *houses*. There ought to be no collection nor stagnation of it; no cesspools of any sort; and the drains employed to carry it away, ought not to admit of delay or stagnation for an instant.

2nd. The sewers into which the house-drains empty themselves ought likewise to carry the sewage away from beneath our *streets* and roads at once. There should be no long subterranean tunnels, containing deposits of putrifying garbage. There should here be no stoppage nor stagnation. *Move on!* is the order of the Sanitarian school.

3rd. So quickly should sewage water be moved on from beneath our houses, and from beneath our streets, that there should be no time for putrefaction, no opportunity for generating the noisome steams that now assail our noses at every grating.

4th. The sewage should not be passed into the river *anywhere*, whether within the limits of the Metropolis, or below those limits. For even granting that the tide will bring back nothing, the wind will, in the shape of noisome vapours mixed with fog.

5th. As we have again and again said, the sewage should be applied to the land; the destination to which common sense and chemical philosophy alike direct it. To attempt to get rid of it in any other way, is to incur tremendous expense, to create a host of nuisances, and to do a foolish and wasteful thing, even if successful.

These are our five points, to which we adhere, and which we would earnestly beg our readers to stand up for. Let hydraulists settle the rate at which water runs, and let engineers decide on the best material for tunnels; so that they attain the end we need not quarrel with the means. But we are bound not to be satisfied till that end is attained. If we abolish stinking cesspools in the houses, we do not choose to have them transferred to our streets in the form of sluggish stagnant tunnels choked with putrid deposit; neither will we tolerate the waste of valuable manure, nor the pollution of air and water which must follow upon its being cast into the Thames in any part of its course to the sea.

We must consider some of our five points in detail on some future occason.

DR. TROUSSEAU ON TRACHEOTOMY IN CROUP.

We beg to call the attention of our readers to the valuable Lecture on Tracheotomy in Croup, by Professor Trousseau. The results of the operation in the hands of the distinguished Professor are somewhat marvellous, and very different from those which have been obtained by English Practitioners, who have to a great extent discarded it, in consequence of the want of success attending their practice. Large numbers of children die every year from croup in this Metropolis: for this reason alone any remedial means, calculated to remove the mortality from this disease, deserve our consideration, and the facts brought forward by M. Trousseau justly demand, and will, no doubt, secure the attention of the Profession in this country. It is very possible that the pathological conditions of croup may differ in the two countries, and that the relative success of this operation may be thus accounted for; or, a resort to it at an earlier period of the disease may ensure the good results obtained in France. Neither of these circumstances should be overlooked by those who endeavour to come to a just conclusion as to the value of tracheotomy in croup.

THE WEEK.

We are happy to find that the Vestry of Paddington has adopted a very judicious course, in choosing a Medical Officer of Health for that populous and influential district. The Vestry, having appointed a Committee to report upon the duties and salaries of the different officers to be appointed under the Local Management Act, has received from the Committee so delegated, a recommendation that, in respect to the choice of the Medical officer, the Vestry should request three Medical gentlemen of eminence to examine the testimonials of the candidates, and to examine the candidates themselves, if they think proper, and afterwards to present five of such candidates to the consideration of the Board. The three Medical referees so recommended are to be chosen from the following gentlemen:—Dr. Baly, Dr. Tweedie, Dr. Alfred Taylor, Dr. Arnott, Dr. Lyon Playfair, and Mr. Paget. We are very curious to see how this scheme will operate; but we cannot help expressing our strong approbation of the plan proposed, which shows on the part of the Paddington Vestry a most creditable abnegation of those party and personal tendencies which, if indulged, would bring so much mischief upon the cause of Sanitary Reform.

Amidst the festivities of the present season, it is painful to reflect upon the increase of pauperism, which has resulted from the war and the high prices of provisions. From numerical statements quoted in the daily papers, we learn that the Workhouses of the Metropolis contain a much larger number of inmates than they did at the corresponding period of last year; but the amount of indoor relief afforded in these refuges for the destitute, gives only an index to the still greater amount of poverty and misery unrelieved without, and which, we fear, is progressively increasing with the continuance of war, and the interruption (though still fortunately partial) to the pursuits of commerce.

It was stated in the newspapers last week that the prisoner Palmer, who stands charged with the murder of Mr. Cook by the administration of strychnine, had died in gaol; but it now turns out that the report is unfounded, although it would appear that he attempted to starve himself. Since his committal to prison, the mysterious deaths of several other parties have been laid at his door, and different bodies of supposed victims have been exhumed, and the contents of their viscera sent to Dr. Alfred Taylor. It is said that arsenic has already been discovered in the intestines of Mrs. Palmer, the prisoner's wife, on whose life an insurance of £13,000 was effected. The mind is horrified at the contemplation of such a system of wholesale murder, and we cannot but hope that these statements will turn out to be untrue.

The *Association Journal*, which has for some time past been in a very rickety condition, has just made known its pecuniary embarrassments to the Medical public. The Committee appointed to revise the laws of the Association, has discovered that a contribution of ten shillings from each member is necessary to liberate the Journal from its liabilities. Assuming that the number of Members of the Association is 2000, it therefore requires £1000 to be contributed, in order to keep the Journal going. This is the very same sum, it will be remembered, that Dr. Cormack proposed to raise by a voluntary contribution from members of the Association. From these facts, it is quite evident that the attempt to establish a cheap journal for the members of the Association has been a failure; and therefore the sooner it is abandoned the better. Although it may be very desirable to raise £1000 towards the support of the Journal, we by no means believe that the members will respond to the call thus made upon them, and we should not be surprised if the present attempt to raise the funds should turn out as unsuccessful as the previous scheme for the £1000 Journal Fund.

REVIEWS.

The Influence of Tropical Climates on European Constitutions. By James Ranald Martin, F.R.S. A new Edition. Pp. 599. London. 1855.

For some time past the excellent work on tropical climates, originally composed by the late Dr. James Johnson, and the last edition of which received the able assistance of Mr. Martin, has been out of print. Many inquiries have been made for the work, which was looked upon as a text-book on the subject; and lately especially, since the war has directed the general attention to the East, its want has been more and more felt. It is, therefore, with much pleasure that we perceive that Mr. Martin has produced a new edition, which may rank, however, almost as a new and original work. The entire volume has been re-cast and re-written; and, while most of what was excellent in the last edition has been retained, a new character has been given to it, and a large mass of fresh and most valuable information, which Mr. Martin is so well calculated to afford, has been added.

The work as it now stands is divided into two parts. In the first, the direct effects of a tropical climate on the constitution; the diseases it occasions, their causes, treatment, and modes of prevention, are considered. In the second are examined the sequelæ to these diseases, and the counter-influences which a return to a temperate climate produces on those who have long resided in tropical regions.

Mr. Martin commences with a most interesting account of the medical and physical climate of Bengal, and of the causes of physical climate in general. The physiological effects produced by the climate of the East Indies on European constitutions are fully investigated; the influence of the seasons on health, as well as the geography of disease, are ably traced out, and a most interesting and valuable chapter is devoted to the best means of preventing diseases, as applicable both to civil and to military communities.

For the discussion of these important questions, including all that is known respecting the *external causes of disease*, Mr. Martin's experience in the East may fairly be supposed to have qualified him. For we find that as long ago as 1835 he proposed, and induced the supreme government of India to carry out, a general and systematic plan of Medical reports on the topography and statistics of our Eastern possessions, with a view to their sanitary improvement. Not content with this, the largest sanitary measure, perhaps, that was ever proposed or executed, Mr. Martin very shortly afterwards proposed, and had carried out with a like success by the government of Bengal, an elaborate plan for the sanitary improvement of Calcutta, the capital of British India. This last measure is still in progress, and Calcutta is now reaping the many benefits derived from it, including the advantages of a magnificent Fever Hospital; for these the inhabitants have to thank Mr. Martin, to whose individual exertions they may be said to be exclusively due.

We have alluded to these circumstances to show that, in addition to his great military experience, including the fatal campaigns in Ava during the first Burmese War, subjects relating to public health in civil life have largely engaged the attention of Mr. Martin. The greater weight must, therefore, be attached to his emphatic declaration, that the first and principal duty of our Army and Navy Surgeons, as well to the State, to our fleets and armies, and to individuals, is the *prevention* of disease.

In civil life, observations on the causes of disease, and on the best means of preventing them, must necessarily be imperfect as compared with the experience to be gained by our Military and Naval brethren. Where large numbers of men, of about the same age, and placed under similar circumstances, are subject to the strict control and supervision of the Medical observer, a wide field for accurate investigation is opened which the civil practitioner must seek for in vain. That such opportunities should not be wasted, that the sphere of usefulness of the Medical Profession should be enlarged, and that the physical and, consequently, moral condition of

our fleets and armies, as well as of our population in general, should be improved, is of such vital importance, that we cannot but look upon the section that Mr. Martin has devoted to the subject as one meriting a most attentive perusal.

The chapter which follows, the longest in the work, describes the nature, causes, and treatment of remittent fever. This subject our author considers the most important which can engage the attention of the tropical Practitioner. He states that on the just knowledge of this disease must depend nine-tenths of the usefulness of every Medical officer who may have to serve in hot countries, and that he who can treat remittent fever successfully, need not be at a loss in the Medical management of any, or of all tropical diseases. There is no occasion for us, therefore, to insist on the importance of this part of the work.

The next subject treated of, is one which has most painfully engaged our attention during the last, and may again this present winter, from the ravages it has inflicted on our brave soldiers in the Crimea and in Turkey—namely, Dysentery. This, the scourge of armies, and a most important disease of tropical climates, is treated of by the author in all its known complications, and it both merits and will receive a most attentive perusal.

After dysentery, we come to diseases of the liver, diseases which, intrinsically or in complication with the fevers and dysenteries of the East, constitute an enormous proportion of the sufferings resulting from a residence in tropical regions; and especially from active military service in such countries. The amount of actual hepatic disease in the East Indies, as well as its complications, are demonstrated in a series of statistical tables of much novelty, interest, and value.

Following naturally after diseases of the liver, we have an interesting account of the endemic congestion of the spleen, in which the nature of splenic cachexia is explained as well as the fatal effects of the splenic complications both in malarious fevers and in epidemic dysenteries.

The next divisions refer to epidemic cholera and to yellow fever, in which we find some valuable historical and topographical notices bearing upon the origin and progress of those epidemics. An article on Delirium Tremens concludes appropriately this part of the subject.

Referring again to the consideration of military health, we have four articles on the habits of European soldiers—on the term of efficient service in India—on the selection and improvement of localities for European troops—and on the mortality and physical management of European children in Bengal. With these the first part, or that relating to acute tropical diseases in their cure and prevention, terminates; and here we would call attention to the importance of the subjects just enumerated, and to the necessity of a thorough and earnest study of them by all who desire to treat efficiently the diseases of Europeans in the inter-tropical possessions of the British Empire. The responsibility which attaches to the Medical office in all hot climates, whether the Physician has to treat men, women, or children, is often and emphatically referred to by Mr. Martin, and most properly so, when we consider that the maladies treated of are of the most acute and formidable character, that they run their course for the most part with the greatest rapidity, and demand the most prompt, decisive, and energetic treatment.

The first part is most interesting to the Practitioner in our Eastern possessions; the second, hardly less so to the Practitioner at home. In this we have recorded the secondary or chronic results induced by disease or a protracted residence under a tropical sun, as well as the effects produced by the change to a cold climate, on constitutions which have at length accustomed themselves to the conditions of external heat to which they had so long been exposed.

As in the former portion of the work so in the latter, the subject of diseases is preceded by a chapter on the physiological influences of climate, not merely tropical, but European as well. The various diseases under which the returned Indian usually suffers are now carefully described. These, it will be seen, differ from the affections described in the first part, in being almost entirely chronic in their nature. No longer rapid in their progress, no longer ardent in their character, nor requiring prompt and almost heroic treatment; for the most part they are slow in their course, attended with debility, and requiring the greatest care and caution on the part of the Practitioner. Among these affections, we would especially direct the attention of the reader to the chapters on anæmia,—on chronic diseases of the liver, including the valuable information respecting the use of the nitro-hydrochloric acid bath,—and on chronic diarrhœa, including the novel and important remarks on its pathology.

Our space will not allow us to quote at all from the work, or do more than give a hasty and rapid analysis of its contents; we can, however, safely and heartily recommend it as containing a mass of information of the most valuable kind, and relieving a want which no one, probably, now living, except Mr. Martin, could so adequately and efficiently supply.

Introductory Address delivered at the Royal College of Surgeons in Ireland, on the Inauguration of the Military-Surgery Chair, November 12, 1855. By Jolliffe Tufnell, F.R.C.S.I., M.R.I.A., Regius Professor of Military Surgery. Pp. 34. Dublin: Farmer and Co. 1855.

In this Lecture Mr. Tufnell eloquently defends the Medical Department of the Army from the charges which have been so unjustly brought against it. He also pays a warm tribute of respect to the late Sir George Ballingall, who, although not the first Professor of Military Surgery, was the first who insisted upon the importance of the subject, and who induced the Government to establish a similar Chair in the City of Dublin. Mr. Tufnell shows that no more appropriate locality could be chosen for the lectures of his course than the College of Surgeons of Ireland, which not only grants diplomas in Surgery, but has also a fully organized Medical school. We are happy to find that the Irish College of Surgeons, in acceding to the wishes of the Government to extend the Professional privileges of the Army Medical Department, has opened its portals to all Medical officers who may be quartered at Dublin, and who, whether Irish, English, or Scotch, will have the opportunity of dissecting or studying within its walls in the same manner as the students and members of the College itself. Mr. Tufnell's lecture is calculated to attract much attention at the present time, when the whole Medical system of our army is undergoing a thorough scrutiny.

Hooper's Physician's Vade-Mecum; or, A Manual of the Principles and Practice of Physic. Fifth Edition. By William Augustus Guy, M.B., Professor of Forensic Medicine, King's College, London; Physician to King's College Hospital. Pp. 676. London. 1856.

Hooper's Vade-Mecum is a book long familiar to the Profession, and hundreds and thousands of Practitioners at home and abroad have drawn from the perusal of its pages many sound precepts for the treatment of disease. But the Hooper's Vade-Mecum of the present day is a far different work from that of former times: every department of Medicine has, since its first appearance, undergone a thorough investigation, and, like the human body, which is said to be entirely changed every seven years, so the Vade-Mecum now before us resembles that used by our ancestors in little more than the name. The physical exploration of the chest, the laws of hygiene, the chemical and microscopical examination of the tissues and secretions and excretions, have all and each added new features to the study of practical medicine, and it is no small praise to the learned Professor who has now edited the work for the fifth time, to state that he has shown himself equal to his laborious task, and has made Hooper's book a faithful guide to the Medical Science of our own day. Dr. Guy has rewritten a portion of the first part, which relates to General Pathology and Therapeutics, and has made several additions to the second part, which embraces the Practice of Medicine; and we are pleased to find that he has paid considerable attention to the diseases of the zymotic class, to which events of recent occurrence have imparted so much interest. With these commendatory remarks we introduce the present edition of Hooper's well-known manual to the attention of the Medical public.

Common Sense versus Homœopathy. By Samuel Knaggs. Pp. 48. London. 1855.

This is a very excellent well-written pamphlet upon a subject which cannot be discussed too often for the sake of truth and

common sense. Mr. Knaggs is well adapted to break a lance with the homœopathic quacks, for he is thoroughly acquainted with the bearings of the case, and treats his opponents with great candour and moderation, although, at the same time, with great vigour. This pamphlet will be read with interest by the Profession, and if the public in general could be induced to read it, much good would accrue also to legitimate medicine, and a proportionate blow would be levelled at one of the most absurd impositions of the day.

Himalayan Journals. Notes of a Naturalist in Bengal, the Sikkim and Nepaul Himalayas, the Khasia Mountains, etc. By Joseph Dalton Hooker, M.D., R.N., F.R.S. A new edition. In two volumes. London: 1855.

By the publication of his Himalayan Journals, Dr. Hooker proved himself a worthy scion of his illustrious father, and one of the most adventurous and accurate naturalists of the day. The Second Edition has been rendered necessary by the rapid exhaustion of the first; and whether we regard the present volumes as a rich treasury of observations on one of the most attractive regions of the globe, or a guide to the naturalist who may be proceeding to explore the beauties of the Himalayas, they are equally deserving of unqualified praise.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE EMPLOYMENT OF ICE AFTER OPERATION FOR CATARACT.

By MM. MAGNE and BAUDENS.

M. Magne, in a paper recently read at the *Académie des Sciences*, gives an account of the success he has met with from the application of ice after the operation for cataract. The cases which he shortly narrates are 23 in number, in which depression was resorted to 27 times and extraction twice. After 25 of these operations no inflammatory symptoms whatever were observed, and in 3 of the cases in which these were present the ice had been only applied interruptedly, and in another the two eyes were operated upon the same day. The absence of inflammation in some of the cases in which, from the predisposition of the patients, or the difficulties of the operation, it was to be expected, leads him to regard ice as an effectual preventive. Moreover, he believes his treatment conduces to the re-establishment of vision more efficaciously than any other. Deducting the patients still under treatment, there remained 17. In 12 of these, vision was completely re-established; in 4, large objects and colours could be distinguished, but writing and reading could not be performed, and in the patient on whom a double operation was performed, vision was restored only in one eye. As a third conclusion, M. Magne states that the use of ice accelerates the period at which the eye can be employed after the operation.

M. Baudens, however, claims priority in the employment of ice in all traumatic lesions, and especially in the operation of depression for cataract. He believes that any doubt as to its great efficacy must arise from the faulty mode of using it, which usually consists in wrapping it up in goldbeater's-skin. Its application should, in fact, be graduated according to the amount of caloric that requires subtraction. As long as the excess of caloric only is removed, the patient derives comfort and relief from the application; but, as soon as his normal caloric begins to be abstracted, pain is the result. Its application is proper at any time that excess of caloric is present, even if several days have elapsed; but the sooner after the operation it is commenced with the better, if abnormal caloric be present, as precious time is saved. As no inflammation exists, however, at the time of, or directly after, the operation, ice applied then will cause pain, which itself will give rise to mischievous reaction. Immediately after the operation, a single compress, dipped in water that is to be gradually rendered colder by adding a little ice, should be applied. In half-an-hour's time a small piece of ice is placed between the folds of the compress, its size being regulated according to the indications, removing it also at intervals, if pain be induced. After some hours passed thus in feeling the way, the patient is enabled himself to regulate, by his sensations, the amount of cold that it is beneficial to apply. The duration of the application is also regulated by the continuance of the production of morbid caloric, a mean period of eight days having been required by M. Baudens' patients before the ice could be finally discontinued. This is to be done gradually, as soon as disagreeable sensations decidedly predominate. M. Baudens seldom applies a piece larger than an almond, and this, being flattened, may be brought to exert all its influence on the globe, through the compress, without causing compression. A few shreds of fine charpie should be laid over the eyelid, and especially over the angles and depressions, and if the cold is too intense a few more shreds may be interposed. The ice melts slowly, and the cold water flows gently into a small sponge, supported on the cheek by a handkerchief. In this way M. Baudens forms what he calls an ice cataplasm, which diffuses the cold over the ocular region in a uniform and precise manner, not attainable by the goldbeater's-skin bag. The latter, too, imparts cold deprived of its moisture, which is far less beneficial.

M. Magne objects to this mode of applying the ice, that it keeps the patient wet, and gives rise to coryza or bronchitis, which may induce a sneezing or coughing very detrimental to the success of the operation. M. Magne soaks the compress and part of the bandage that covers the eye in iced water, over which is laid a little bag of goldbeater's skin, containing a flat piece of ice the size of a pigeon's egg, which is removed before being quite melted away. While M. Baudens continues the application for about ten days, M. Magne has never required it for more than three. While the object of M. Baudens is to abstract the morbid caloric, M. Magne removes the normal, applying the ice immediately after the operation, and continuing it without intermission; M. Baudens combats the inflammation, and M. Magne prevents it.

In other recent communications, M. Baudens attributes to his employment of refrigerant dressing of wounds, the remarkable fact, that during his twenty-five years' experience in the military Hospitals, he has never met with a case of traumatic tetanus. He speaks too, in terms of increased confidence, in favour of a former recommendation of the employment of cold and compression in the treatment of strangulated hernia. The amount of refrigeration is to be regulated by the patient's feelings, which are those of comfort as long as the strangulation, pain, and heat persist. In his own practice reduction takes place in nineteen out of every twenty cases.—*Comptes Rendus, Tom.* XLI. pp. 89, 264; *Gaz. Med. Nés.* XXXVIII. XLIII.; *Gaz. Hôp. Nos.* XC. CXV.

OBSERVATIONS ON TEMPERATURE IN PUERPERAL WOMEN.

By Dr. C. HECKER.

The following are some of the results Dr. Hecker has arrived at from numerous observations:—1. The temperature was ascertained in thirty-five cases of normal labour by introducing Reaumur's thermometer into the vagina immediately after the expulsion of the placenta. Negative conclusions, however, could alone be arrived at; for, although a considerable rise of temperature occurred in many cases, the conditions essential to this were not ascertainable. Thus (1) the duration of the entire labour was not one of these; for while the temperature rose to 37° after a labour of twenty-five hours, it reached 38°·9 after one of five hours; and in a primipara at 41, with a narrow pelvis, in 37 hours it was but 37°·75. (2) Although in the second or expulsive stage of labour (attended as it is by a greater expenditure of muscular power, and a consequent increase of molecular transformation), we might expect a higher temperature as compared with that of the entire duration, the author's tables show that such increase is not proportionate to the duration of this stage. Thus, both after an expulsive period of three-quarters as well as of two and a-half hours, the temperature was 37°·5; in one instance, after eight hours it only rose to 37°·45; while, on the other hand, it had in one risen to 38°·9 in a quarter of an hour. (3) The elevation of temperature after labour is probably influenced by many other circumstances that repeated observations alone can ascertain. Not only the intensity of the pains, but their rapid succession, seems especially to favour the rise of temperature; for while severe

pain and short intervals gave rise to considerable increase of temperature, this did not occur even under very severe pains, providing the intervals were considerable. To the objection, that the rise of temperature observed in the vagina may be merely local, Dr. Hecker replies, that in all the cases in which he has compared it there with that of the axilla he has found it identical. Of course, the observations made some time after birth, to be next noticed, were always made in the axilla.

2. *Temperature of Lying-in Women.*—This was examined with exactitude in sixty-three cases. The temperature was found in the great majority of cases to undergo a diminution, as compared with its condition just after birth, such diminution being more immediate in proportion to its former elevation. As a general rule, the diminution reached its lowest point twenty-four hours after the termination of the labour. After this period, in the minority of cases an equal course of temperature, with evening exacerbations and morning remissions, is observed. Far more frequently there is a considerably-increased production of caloric. 1. Sometimes this increase is very great, amounting to 3½°, a temperature met with during no other physiological metamorphosis, and in few pathological processes. 2. Such increase of temperature is generally accompanied with an increased rapidity of pulse. 3. This increase of temperature bears no constant relation to the condition of the breasts. 4. In those cases in which the temperature underwent little or no rise, most frequently no changes in the condition of the economy were observable, but the reactionary condition known as "milk-fever," commonly accompanied the higher temperature. 5. The period at which the maximum of temperature is observed varies much, the increase being sometimes very sudden, and at others only gradual. As the result of observations made in thirty-eight instances, seventy-seven hours after birth may, upon an average, be stated as that period, and it is one that pretty well corresponds with that at which milk fever attains its height. 6. The greater frequency of the high temperature in primiparæ than in pluriparæ, is confirmatory of the general opinion as to the greater liability of the first of these to milk-fever. Still, as the author's cases furnished a very large proportion (forty-seven out of sixty-three) of primiparæ, he speaks guardedly upon this point. 7. The rise in temperature is equally observed in women who do not suckle their infants. At least this was the result of the author's examinations in four instances. 8. The temperature, after having attained its highest point, usually sinks again more gradually than it rose, until it reaches the same point as after labour.

3. *In Puerperal Diseases.*—The few observations the author has made on the temperature in puerperal diseases, have not led to any decided results.—*Annalen des Charite—Krankenhauses, Jahrg. 5.* Pp. 333-374.

FOREIGN CORRESPONDENCE.

SUCCESSFUL CASE OF EXTIRPATION OF THE UTERUS.

By G. KIMBALL, MD., Lowell, Mass.

[Communicated for the *Boston Medical and Surgical Journal.*]

In furnishing a report of this successful case of removal of a diseased uterus, I have to acknowledge myself embarrassed somewhat from the want of a more perfect statement of details than I have been able to procure. Such a statement had been promised me by the Physician in attendance after the operation. It has, however, never yet come to hand, and in despair of ever receiving it, I am now under the necessity of furnishing a report much less complete than I could have desired, relying mainly, for the essential details of it, upon statements and details gathered from the several notes received before the operation, and during the patient's recovery.

The following quotation I make from a letter received from the attending Physician, Dr. A. Skinner—dated

"Vernon, Ct., Aug. 16, 1853.

"Dr. Kimball. Dear Sir,—Mrs. T., of this town, some time since called my attention to a small tumour situated in the abdomen, on the left side, and as low down as the region occupied by the uterus. This struck me at first as being possibly of serious importance, and requiring special attention. Some few months passed on, and I consulted Professor Knight, of New Haven, regarding the case. But he added nothing by way of explaining the real nature of the disease, nor did he propose any new treatment of it. Some months after, Dr. Knight was again consulted—still no improvement. Up to this time everything in the form of prescribed remedies has failed in retarding the growth of the tumour, till now it fills a large space in the abdomen.

"No great inconvenience attends the size of the tumour, but the trouble is from hæmorrhage during the period of menstruation. Every month a large quantity of blood is lost, reducing the patient extremely—even hazarding her life. Now the question is, can this can be a suitable case for the operation of ovariotomy? Is not the uterus implicated in the disease? The tumour is movable, and, I should think, no very firm attachments had formed. But whence this profuse hæmorrhage, if not from the uterus? The patient is 34 years old, and at the commencement of the disease was in robust health."

In reply to this statement, I could only remark that the account given of the case was characteristic of uterine, rather than ovarian disease; yet with this view even, I was not prepared to pronounce it altogether beyond the reach of remedy. On the contrary, rather than give up the case as utterly hopeless, I would propose, as a last resort, the removal of the uterus itself.

In accordance with this suggestion, I was requested to visit the patient at her residence. This I did on the 1st of September, 1853. The suspicions previously entertained regarding the nature of the disease in question, were now fully confirmed, as the facts of the case came to be better known by personal examination. The first aspect of the patient indicated, most unequivocally, an extreme case of anæmia. She lay in bed, upon her back, unable to sit up, or turn upon her side without help. She had but just rallied from her last attack of hæmorrhage, which had been frightfully severe. Another similar attack, if allowed to occur, was looked forward to as an event certain to be fatal. And in due course, this event was now liable to happen at any moment.

Upon examining the tumour, it was found, as had been previously stated, to occupy a very considerable space in the centre of the abdomen. Its form was globular—surface perfectly regular—movable from one side to the other—evidently unattached by adhesions—elastic, without the least sign of containing fluid, yet less solid in its feel than if it had been a more fleshy substance. Its diameter apparently about seven inches.

Examined per vaginam, the neck of the uterus was found in its natural condition, both in position and size. The os uteri open rather more than natural; a sound readily passed up some four or five inches. The enlarged and diseased portion of the organ could not be reached by the forefinger—the entire bulk of the tumour lay in the abdominal cavity.

Without knowing the actual state of the case, one would have judged, from the appearance of the abdomen, that it was a case of pregnancy six months advanced. No lesion, organic or functional, of any other organ, could be detected. Indeed, but for this one difficulty, there seemed no hinderance to the recovery and enjoyment of perfect health.

The important question was now raised, whether the case was one that promised any chance of relief from a surgical operation? The operation proposed was the removal of the uterus by section through the abdominal walls. Extraordinary and hazardous as this suggestion seemed, the feeling was unanimously and unhesitatingly expressed, by every one present at the consultation, that this procedure offered the only possible chance of saving the patient from impending death. This conclusion was no sooner made known to the patient, than it was readily assented to—both she and her husband deeming that a chance of life by an operation, however small that chance might be, was better than the certainty of a speedy death.

The patient was now put in readiness for the operation by being placed on a properly elevated table, and brought under the influence of chloroform. Upon exposing the abdomen and observing the small size of the patient, it appeared quite evident that in order to dislodge the tumour entire, it would be necessary to extend an incision from the ensiform cartilage to the pubis. But rather than do this, it was thought better to expose a part only of the tumour, and see what could be

done by way of enucleating the diseased portion of it—thus reducing its bulk, so as to allow its being drawn out through a comparatively small opening. Accordingly, an incision was made through the linea alba directly over the most prominent portion of the tumour, exposing it to the extent of about four inches. Another cut of less extent, through the uterine walls, brought to view the fibrous mass within. Observing that no bleeding followed this procedure, this last incision was prolonged to an extent corresponding with that through the parietes. Through this opening, a portion of the diseased mass, thus exposed, was suddenly and forcibly excluded, seeming, at first, as if a little additional force would be sufficient to dislodge it entirely from its connexions. Attachments, however, firmer and more extensive than had been anticipated, rendered this part of the operation rather difficult; but, being finally accomplished, and the uterus becoming at once greatly diminished in bulk, it was readily drawn out from the abdominal cavity, conformably with the plan adopted in the outset, and placed in the hands of an assistant.

A straight, double-armed needle was now passed through the organ in an antero-posterior direction, as low down as the supposed point of its junction with the neck, this part being, of course, left intact as regards its relation with the vagina. By this plan of appropriating to each lateral half a separate ligature, there was no great difficulty in making sure against all chance of subsequent hæmorrhage; a consideration of great importance, in view of what might otherwise be very liable to happen.

The remaining part of the operation was very simple, and easily accomplished. It consisted of a mere amputation of the diseased structure by a single straight incision, carried across from one side to the other, and as near to the ligatures as was consistent with their secure attachment.

The parts having been now made as clean as possible, the wound through the parietes was brought together, and its edges secured with four sutures. Adhesive strips, and a compress wet with warm water and laudanum, completed the dressing.

The operation was somewhat protracted, lasting nearly or quite forty minutes; yet it was not accompanied or followed by any extraordinary or alarming degree of exhaustion. The amount of blood lost did not exceed four ounces.

After being laid in bed, the patient was troubled with nausea, and occasional vomiting, which continued for two or three hours. This, however, was probably the effect of chloroform merely. Upon its ceasing, an urgent desire, without the ability, to evacuate the bladder came on, together with a severe pain in the lower part of the back. The first difficulty was readily relieved by the use of the catheter, the latter by a half-grain dose of morphine, which seemed not only to quiet the pain, but to induce what was then considered a comfortable night's rest.

For the subsequent history of this case, I am obliged to quote from letters received from time to time from the attending Physician, Dr. Skinner.

On Saturday, two days after the operation, he writes as follows:—"At twelve o'clock yesterday I was called to see our patient, and found her vomiting severely. Directed an enema of starch and laudanum, with counter-irritation over the stomach. This succeeded in checking the vomiting very soon. Spent the following night with her, and, for the most part of the time, she was quiet, and, when disturbed at all, it was from nausea. Some fulness of the abdomen, with a little tenderness."

"Tuesday, September 6 (sixth day). We find our patient morning (eight, a.m.) comparatively comfortable. Monday, there was much tympanitis and tenderness of the abdomen. There had been considerable nausea the evening previous, and occasional vomiting. Two mild laxative enemas were given, but no evacuation of the bowels followed. Average pulse 116, and somewhat irregular.

"Last evening another laxative enema was given; and a few hours after, still another. This last was soon followed by a good-looking movement. Since this, there has been less restlessness. Starch and laudanum injections have been duly kept up. Less flatulence, and with the exception of two paroxysms of vomiting (one since I commenced writing this morning), the symptoms are generally more favourable. Let me add, that during last night there was some fever, face flushed, pulse 125. This morning some pus appeared at the lower part of the incision."

"Thursday morning, Sept. 15.—Our patient is still alive and rather comfortable. Nausea and vomiting have been the worst symptoms since operation. Bowels have not moved since last Thursday. Tympanitis gradually improving. Pulse 100 to 120. Not much febrile action. We allow her a little very weak broth. We have succeeded in getting the full effect of opium by using laudanum injections—the only way opium could be tolerated."

From the date of the above, till January following, accounts of regular improvement were received as often as once every two or three weeks. On the 12th January, Dr. Skinner wrote as follows:—"Our patient remains much the same as when I last wrote. She is able to walk about the house, and looks nearly well. Countenance good; pulse strong; appetite good enough; bowels free; in short, everything about her right, except what is produced by the irritation from the ligatures."

March 1, six months after operation, another communication was received, in which the ligatures are again alluded to as still attached, and causing considerable annoyance from mere local irritation. Again directions were given to apply still more force. This was promptly done; yet the ligatures remained firm.

Early in May following, I visited my patient at her residence, and found, as her Physician had previously stated, "everything all right, except the irritation produced by the ligatures." Her personal appearance had so changed, that I could hardly believe her to be the identical person I had operated on eight months previous. The recovery of flesh and strength—the healthy, florid colour of the cheeks—good appetite, and perfect digestion, all indicated the return of robust health.

The ligatures, however, still remained an annoyance, producing a good deal of discomfort, particularly in the exercise of riding and walking. Another attempt to remove them was again unsuccessful, and from the pain that always followed these efforts, it was thought advisable rather to allow them to remain attached for an indefinite time longer, than to subject the patient to repeated failures. This conclusion seemed reasonable and safe, from the fact that their presence was looked upon as a mere inconvenience, and not implying any danger.

This visit, as stated above, was made early in May, eight months subsequent to the operation. From that time to the present, my further knowledge of the case has been only of an indirect character, yet quite satisfactory. From several individuals coming from the immediate neighbourhood of the patient (one of them recently), I learn that the operation is spoken of as perfectly successful, and the patient herself restored to health.

The above case is the only one, I believe, as far as can be ascertained from the records of surgery, where the operation for the removal of the uterus, by what is termed the hypogastric method, has been successful.

I have myself performed this operation in three instances. In one instance, as has been already shown, the result was successful. But in bringing before the Profession and the public an account of an operation, the result of which I claim as singular, so far as the record shows, I should consider myself unjust, and culpably indifferent to my Professional obligations, were I to withhold the fact that, in two other instances of uterine extirpation, I have had the misfortune to lose my patients.

The cases where such a procedure would be proper, are unquestionably rare; yet my conscientious belief is, that cases now and then do occur where the extirpation of the womb is clearly justifiable and expedient. Moreover, the operation, desperate as it is, seems to be not merely one which the patient is fairly entitled to, but one which the Surgeon, upon request, may feel himself bound, as a matter of duty, to perform, so long as by so doing he may possibly save the life of his patient, while otherwise he is sure to see her pass speedily to the grave.

April, 1855.

THE "CAT."—The United States Commissioner at Boston has decided that whipping a seaman with a rope's end is not flogging, within the meaning of the statute. Flogging is a technical naval act, performed by the proper officers, according to certain formalities, and inflicted with an instrument known as a "cat."

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, December 29, 1855.

I presume my last communication did not reach you in time for publication on the 22nd of December, and I may, therefore, regard this one as merely supplemental to it. This is the more fortunate, for of the most interesting and important event, the meeting of the Medico-Chirurgical Society, on the 19th instant, I am able only to give you a most meagre report, founded chiefly on such information as I have succeeded in picking up. The meeting was, I understand, well attended, as indeed the whole of those of this session have been.

The first paper read was by Dr. James Warburton Begbie, one of the Physicians to the Royal Infirmary, and was entitled, "Account of a Case of Chronic Hydrocephalus, accompanied by Cancer at the base of the Brain." The paper was said to be of a highly interesting nature, and drawn up with much neatness and precision. The account of the morbid appearances was given by Dr. Haldane, Pathologist to the Royal Infirmary. Very little discussion followed.

The next paper read was by A. M. Edwards, Esq., F.R.C.S., an assistant to Professor Goodsir, "On Some Points in the Anatomy of Talipes Varus." The reading of this paper was, I believe, followed by a keen discussion on the comparative merits of section of the tendon of the tibialis anticus muscle above or below the malleolus. The low operation, or Mr. Syme's, was defended by Mr. Lister and Mr. Edwards; the high by the author of the paper and Dr. John Struthers.

Dr. Skae, of the Royal Lunatic Asylum, then read a case of poisoning with tobacco. The patient was a lunatic and had swallowed a mouthful of the poison while being conveyed to the Asylum. I regret my inability to give you even an outline of these papers, but doubtless they will all be published.

THE THOMSONIAN LECTURESHIP.

A new and somewhat doughty controversialist has sprung up in this matter, in the shape of Dr. Fleming, the Teacher of Natural Sciences in the Free Church Training Institution. This gentleman has published a letter addressed to Baillie Brown Douglas, who undertook to vindicate the deeds of the magistracy, and the Teacher is generally regarded as completely triumphant.

The letter merely travels over the old ground, and proves satisfactorily—

1st. That no Lectureship was ever instituted, chiefly owing to the jealousy of former Professors; and 2nd. That the collection has been abused; and 3rd. That the funds have been misapplied.

While the Patrons of the University have thus enough on hand in explaining their own misdeeds, some of them have rashly adventured to meddle with matters too high for them.

In a former communication I enclosed you a clever *jeu d'esprit*, from the *Scotsman* newspaper, on Professor Miller's lecture in Exeter Hall. The matter was a clever joke, and as such I regarded it, feeling sure that no one would laugh more heartily than Mr. Miller himself. But what will you think of a sapient councillor, yclept Dr. Renton, who brings the matter gravely before the civic council as a charge against Professor Miller!! Things have, indeed, come to a pretty pass, if the Professors of our University are to be controlled in their doings by such a body.

I believe the real secret of the animosity displayed by this Patron of the University (and the publicans) was the fact that the lecture of Professor Miller was devoted to the Temperance cause, Dr. Renton having ranged himself in the council on the side of the publicans, to whom he mainly owes his election, and to whom the city of Edinburgh ought to feel grateful for furnishing them with so remarkable a specimen of corporate intelligence.

If his object was to inflict a sting, he was unsuccessful, for all the more respectable portion of the council gave

A COMPLETE VINDICATION OF PROFESSOR MILLER;

and the Lord-Provost, who happened to be in London, and heard the lecture, stated that Lord Panmure occupied the Chair, that there were many of the most respectable men in London on the platform, and that there was a large attendance in one of the most capacious halls. He had listened to that lecture with a degree of satisfaction and pride that such a lecture should have been delivered by a citizen of Edinburgh, and he felt convinced it was not only creditable to the city, but to the University with which Professor Miller was connected. He believed, moreover, that the beneficial impression produced upon the audience would more than compensate for the slight inconvenience to which the students were subjected in consequence of the absence of the Professor.

GENERAL CORRESPONDENCE.

IS VACCINATION PERFORMED WITH SUFFICIENT CARE?

[To the Editor of the Medical Times and Gazette.]

Sir,—We frequently hear persons state that their confidence in Vaccination has been shaken by the occurrence of cases of small-pox after vaccination. If these individuals would dip beneath the surface and inquire a little more closely as to the soundness of their misgivings, they would find ample grounds for the restoration of their confidence in the protective powers of vaccination. It must, nevertheless, be confessed that the Medical Profession of England is itself, to a great degree, chargeable with having occasioned that want of confidence of which they complain.

It will not be requisite here to adduce evidence of the immense importance of the operation of vaccination. The late report published by the Vaccination and Small-pox Committee of the Epidemiological Society has brought together nearly all that can be advanced by way of argument on that question. If, indeed, further evidence had been needed, it may be found in the valuable statistical report of the admissions into the Small-pox Hospital, during sixteen years, by Mr. Marson (a), a report which presents a rich storehouse of facts on this subject. From this storehouse I shall accordingly strengthen my positions in the following observations, and, in the first place, by a few statistics, which place in a strong light the great importance of due care in performing vaccination.

The mortality of small-pox after alleged vaccination in persons not having cicatrices is 21·73 per cent.; in persons having one indifferent cicatrix, 11·95 per cent.; in persons having one good cicatrix, 4·23 per cent.; while in persons having four or more cicatrices, the mortality was as low as 0·74 per cent. These results, be it remembered, are taken from a careful observation of upwards of three thousand cases of small-pox after vaccination! Can any facts more forcibly impress us with the value of careful vaccination?

It will, I trust, not be considered to infer any want of respect for the opinions of others, or that I incur a charge of breach of good manners, if without any hesitation I roundly assert that the operation of vaccination is often very carelessly performed by Medical men.

Many amongst us (and I freely own that in former years I may have been myself culpable) do not sufficiently reflect that there is scarcely anything that can happen to a child, during its infancy, that can measure in importance with this simple and apparently trifling operation. An operation it is, the results of which are to extend to the full term of the patient's life. From the absence of a full sense of the deep responsibility lying upon the Vaccinator at the moment of vaccination, too often, alas! is a valuable life cut short, perhaps at the very moment when least of all it could be spared by society. For want of serious attention at this time has many a wife become a widow, and many children orphans. These lamentable consequences I have met with in my own practice, and have often witnessed at the Small-pox Hospital, which Institution I have, by the favour of Mr. Marson, enjoyed many opportunities of visiting.

So important do I consider this point, that, in order to impress it upon your readers, I shall venture to make an extract from Mr. Marson's report, in order to fortify myself:—

"Some reasons may, perhaps, be assigned for a large

(a) Transactions of the Royal Medico-Chirurgical Society, Vol. XXXVI. pp. 359-389.

number of persons in country districts being imperfectly vaccinated; but there can be no justifiable reason why the rural inhabitants of England and Wales should be far less well vaccinated than are the rural inhabitants of Denmark, Sweden, and Prussia. That they are so, I know to be a fact, from the opportunities of observing large numbers of Germans, more especially, who, from the efficient way in which they had been vaccinated, have had small-pox usually in the light varicelloid form. The subject is a delicate one to allude to,—to point out defects is always painful; but the vital importance of the subject, as affecting the health and lives of thousands, will be my excuse for the remarks now made. . . . When so many of the lives of our patients are at stake, to say nothing of minor, though still grave evils, that may be prevented by greater care and better management, it becomes a positive duty to express our opinions as strongly as may be consistent under the circumstances; to make, at least, an appeal to the Profession, which will, no doubt, be responded to by a more careful performance of an operation, which, though of minor importance in itself as a Surgical operation, is of most serious importance in its consequences, as affecting health and life."

I wish it may be true that vaccination has been more carefully performed since Mr. Marson penned his charitable hope. My experience, however, as a public Vaccinator, for a period of fifteen years, has not made me acquainted with any great improvement of late. I have often had lancets sent to me, by Surgeons, to be charged with vaccine lymph,—the lancets being so blunt and rusty that I would not have used them to vaccinate a dog. They might have served very well in experiments having for their object the exciting inflammation by punctures in the flesh of cold-blooded animals.

The same thing I know is constantly occurring at the Vaccine Station of the Small-pox Hospital.

Is it unjust or too severe to designate such carelessness as both discreditable to the Profession and dangerous to the public?

For the successful performance of vaccination, a lancet, as Mr. Marson very justly remarks, "cannot be too sharp, or too clean."

Not only, however, are Medical men often careless as to the condition of their lancets, but too frequently they are also negligent in ensuring lymph of unexceptionable quality. It is no uncommon thing for Surgeons to take lymph from vesicles after the eighth day (the day week), the latest date at which lymph should be used. This irregularity of proceeding, the use of lymph of ninth and tenth day vesicles, is highly objectionable as being a source of misplaced confidence.

Too much lymph is often taken from one vesicle. Actuated by a desire to make his supply go as far as possible, the Vaccinator takes fluid from a vesicle after it has ceased to yield pure vaccine lymph, and little more than the serum or exudation fluid of simple inflammation oozes from its surface.

Another serious error sometimes committed, is the employing, for primary vaccination, the lymph of a re-vaccination vesicle. It is overlooked that the influence of the lymph is modified by the previous constitutional affection, and ought not, therefore, to be relied upon to produce the full protective influence of a primary and unmodified vesicle.

How can we wonder if an after-life disappointment follows such want of care and precision in infancy!

As illustrating and bearing out my remarks, I may here relate an incident which has occurred to me within the last few days, while I have been thinking over this subject.

A gentleman requested me to re-vaccinate his family, consisting of himself and six children. On examining their arms for the traces of the primary vaccination, I was surprised to find one cicatrix only on each individual, and of them two very indifferent. Expressing my surprise to the father, he explained the occurrence by informing me that his Medical attendant in the country had vaccinated each by only one puncture in the first instance;—and in the case of the youngest had even delegated his office to the father, contenting himself by transmitting an ivory point charged with lymph, and telling him to insert it himself. The five punctures made, at re-vaccination, in the arm of this child (aged 7 years) all took fully, and went through their course, modified only so far that it quickly died away after the ninth day. There can be little doubt that the re-vaccination has afforded to this child the protection he had not before. I may add that in the other six persons the lymph took, and the disease went through the ordinary short course of re-vaccination. I submit, then, with all due respect, that the operation of vaccination is often performed without sufficient attention to its important nature; that the disappointment often experienced in after life with regard to the protective power of vaccination, would be far less frequently met with, did Medical men bestow more care upon this operation.

Much as vaccination has suffered from open and from insidious enemies, the hindrances to its progress from these causes must in time disappear before the triumphant power of truth. This consummation is, however, delayed indefinitely by the carelessness of those who are at heart the friends of all that is beneficial to humanity. If we would all but fully bear in mind our responsibilities in this matter, small-pox would eventually be extirpated — it is all but so in Sweden; why should the countrymen of Jenner be behindhand in a work of mercy, so easy and so sure as vaccination?

I am, etc.

November 12, 1855. W. B. Kesteven.

DEATH FROM CHLOROFORM IN EDINBURGH.

[To the Editor of the Medical Times and Gazette.]

Sir,—It would be an ungracious task to advert to this sad occurrence, were one to do so with a censorious spirit, particularly too when its administration has been so markedly successful there, and when we are indebted to Professor Simpson for this valuable discovery. I therefore beg only to allude to it for future guidance.

In my work, just published by Mr. Churchill, may be read, p. 75:—"When there is a weakened action of heart, as accompanies fatty degeneration of its muscular fibres, or when strong emotional excitement occurs, the vapour of chloroform, if not well diluted with atmospheric air, or if given too quickly or too long, may stop the heart's action before respiration ceases. Dr. C. J. B. Williams remarks, that under "strong mental emotion or acute sensation, the heart most remarkably suffers from such cause. Thus a sudden shock, whether of grief, surprise, fear, or even joy, may cause fainting, partial suspension of the heart; nay, even death has ensued; and the expressions, 'frightened to death,' and 'killed with joy,' are not always mere figures of speech." (*Principles of Medicine*, p. 26.) Reference is then made to the fatal case at St. George's, which was precisely similar to the one now alluded to, save that no mention is made of its previous administration. I have then remarked that "death has probably occurred entirely from mental emotion, for two or three moderate inspirations of well-diluted chloroform vapour could not produce it. It would be well if the pulse and state of the patient just before the administration of chloroform were always carefully examined; and when a weak, excited pulse exists, to endeavour first to tranquillize the system by a diffusible stimulus; then to accustom the patient to the chloroform inhaler by using it for a moment or two and withdrawing it, and endeavouring to restore confidence as much as possible." (*Aids to Labour*, p. 77.) Again, "an emotional state may produce a fatal syncope, or may cause such depression as to permit of a small dose of chloroform vapour, sufficiently diluted, increasing it to a fatal extent."—P. 78. And the first rule that I have given for its administration is, "always feel the pulse, and carefully examine the state of the patient immediately before the administration of chloroform. If the pulse be feeble, and the woman excitable, or if hysteria exist, first give a diffusible stimulant—as a dose of sp. ammoniæ arom., and then very cautiously and gradually administer the chloroform, commencing with not more than two or three short inhalations at a time."—P. 85.

In the case referred to, "the patient was very apprehensive about chloroform on this occasion, though she had taken it several times before. She took two or three whiffs, and became insensible, falling on the floor." So, too, in the fatal case at St. George's, in which Dr. Snow's inhaler was used by Mr. Potter with every precaution, the valve having been turned so as to admit freely atmospheric air, it is mentioned that, "on entering the operating theatre she appeared very nervous."

It is thus evident that the mode of administration is one thing, and the circumstances attendant on the administration another.

It appears to me that we have had now ample experience (as other cases similar to these two have occurred) to justify us in withholding the administration of chloroform under the well-marked symptoms of nervous depression, and of rendering it culpable in any one using it until such state is relieved.

I am, etc.

31, Bayham-terrace, Dec. 1, 1855. J. R. Pretty, M.D.

ON DOUBLE MONSTERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—In Dr. Druitt's letter, published in the *Medical Times and Gazette*, for December 1, he says:—"Daniel Turner tells us likewise, that 'we have seen within these few years two girls brought out of Germany, miserably complicate, or conjoined about the loins and buttocks, with one common anus and pudendum.'"

If you should think that a more precise description of the two girls thus referred to would be acceptable to your readers, I beg to offer you for publication a translation of that given by Geoffroy St. Hilaire, in his great work (*Histoire des Anomalies de l'Organisation. Tome III. pp.* 48-56). It is a painful but interesting account. The idea of *smothering* similar monsters is preposterous.

I am, etc.

Alford, Lincolnshire, Dec. 1855. R. U. West, M.D.

Family I.—Eusomphaliens.

If, in considering the subject of double monstrosities, we are to have regard to the normal state, and if, on that principle, we are to take as our point of departure the type represented by two distinct individuals, we must necessarily place in the first rank the genera characterized by an almost perfect duplicity, and especially those whose two bodies are most completely isolated. On these two grounds the *eusomphalien* double monsters necessarily take precedence of all others, inasmuch as their peculiarities consist in the union of two subjects almost complete, capable of performing, independently one of the other, almost all the vital functions, and each of whom has its distinct umbilicus, and consequently also, during the fœtal period, its distinct umbilical cord.

The eusomphaliens are, indeed, so nearly allied to the normal type, that it will always be sufficient, without a complete description of them, to show in a few words the very few modifications which they experience at the point of union.

§ I.—Special History and Description of the Genera.

This first family would possess a great number of genera, if we were to admit without a severe criticism all those that ancient authors have described and even given figures of. But if we discard all the types the existence of which is either very doubtful or even certainly false, so as to confine ourselves within the circle of authentic facts, we do not find among eusomphalien monsters more than three generic groups. Very naturally divided into two sections according to the place of union, these three groups are the following:—

A. Union below the Umbilicus.

1. *Two individuals with separate navels, joined together at the buttocks.*—Genus I. Pygopage.

B. Union above the Umbilicus.

Two individuals with distinct navels, having their heads joined together, superiorly, forehead to forehead.—Genus II. Metopage.

Two individuals with distinct navels, having the tops of their heads united together in the inverse direction.—Genus III. Cephalopage.

These three genera, like all those in which the axis of union is perpendicular to the two vertebral axes placed end to end, are of extreme rarity. To that degree, indeed, that of the three genera, I have only had the opportunity of examining two myself, viz., the genera *pygopage* and *metopage*.

Genus I.—*Pygopage.*

The union of two individuals by the inferior and posterior portion of the trunk characterizes this genus, the first of the series of double monsters, following the natural order, and at the same time, and by a happy chance, that of which the organic conditions are the most universally known.

In fact, it is to the genus *pygopage*, that a certain double monster belongs, *bifemale*, born in 1701, at Szony, a town in Hungary; baptized under the double name of Hélène and Judith; exhibited at the age of seven years to public curiosity; travelling successively in Germany, in Italy, in France, in Holland, in England, in Poland; placed at the age of nine years, by the charitable care of the Archbishop of Strigonia, in a convent at Presburg, where it died in its twenty-second year; examined in the course of its travels by all that Europe at that time contained of Physiologists, of Psychologists, of Naturalists; many times described and figured in important works, such as Buffon's *Histoire Naturelle*, and the *Philosophical Transactions;* celebrated even by several poets, in the first rank of whom was found the illustrious Pope; finally mentioned, without exception, in all the works on Teratology which have appeared during the last century and a-half. This double being, known by so many documents, is the one which I shall take for the type of the genus pygopage, and which I intend to study specially, as well in its anatomical conformation, as in the marvellous harmony of its double functions.

Hélène and Judith, placed pretty nearly back to back, were united externally in the region of the buttocks, and partly of the loins. The external sexual organs offered evident traces of duplicity; but there was only one vulva, situated inferiorly and hidden between the four thighs: the vagina, single at first, presently divided into two distinct vaginæ, and then all the rest of the sexual apparatus was double. In like manner there existed two intestines, united only at their orifice in a common canal, and terminating by their common extremity in an anus placed between the right thigh of Hélène and the left thigh of Judith. There was a similar arrangement of the two spines, which became united only at the second bone of the sacrum, and terminated in a single coccyx. Finally, the two aortæ, and the two venæ cavæ inferiores were united at their extremities, and thus established two wide and direct communications between the two hearts. Hence a kind of half-commonalty (*une demi-communauté*) of life and of functions, a source of physiological and pathological phenomena of the highest interest.

The two sisters had neither the same temperament nor the same character. Hélène was the tallest, the handsomest, the most active, the most intelligent, the most pleasing (*plus douce*). Judith, who at the age of 6 years had an attack of hemiplegia, had continued shorter in stature and of a heavy intellect; she was slightly deformed, and had some impediment in her speech: nevertheless, like her sister, she could speak three languages, Hungarian, German, and French, besides a little English and Italian. Both of them were tenderly attached to each other, and each, according to a contemporary author, suffered as much on account of her sister's unfortunate condition as from her own proper misfortune. Nevertheless, during their infancy they frequently quarreled, and even fought with their fists; sometimes, also, the strongest of the two, or the more angry, would lift the other on her shoulders, and run off with her in spite of her. The menses appeared with them both at the age of about 16 years, but not at the same time; and ever afterwards there were differences between them, in the duration, the quantity, and the period of the menstrual flux, notwithstanding their common external sexual orifice. They experienced simultaneously the desire of going to stool, but separately that of making water. They were able to walk either forwards or backwards, but slowly, and to sit down, by twisting their bodies in a very uncomfortable way. Sometimes one would sleep while the other was awake, and sometimes one would be at work while the other was at rest. They both had the measles and the small-pox at the same time; and if other diseases happened to attack either one of the sisters, the other always experienced fits of internal uneasiness, and was at the same time a prey to a lively sentiment of anxiety. Struck by this extraordinary solidarity between the two sisters, too well explained by their organization, their Medical attendants did not hesitate to prognosticate that the death of the one would, as a necessary consequence, be almost immediately followed by that of the other. In a serious illness, from which Judith suffered at the age of 19, it was thought necessary to prepare for death the unhappy Hélène also, and to administer to her, while still full of life, the last sacrament. Judith, however, recovered, but only to die, three years after, of a disease of the brain and the lungs; and then were verified the fearful prognostications of the Physicians.

Having had a slight fever for a few days, Hélène lost, almost suddenly, her strength, preserving all the time her mind clear, and her voice distinct. After a brief agony, she died, the victim, not of her own disease, but of the death of her sister: both died almost at the same moment! And thus perished these unhappy girls, united together, for their misfortune, by indissoluble ties, and condemned, by a frightful and inevitable fatality, to suffer during life, and then to die—the one for the other.

An association like this is fortunately as rare as it is afflicting for humanity. Some six or seven other pygopages have been known, and none of them had the good fortune, or rather the bad fortune, to survive their birth long. Treyling (a), it is true, gives the history of two girls born in Carniola, precisely a year before Hélène and Judith, and like them full of life, though afflicted with this fearful monstrosity. A Surgeon conceived the idea of separating them, but his attempts caused violent convulsions, and they died when they were 4 months old. Was it merely because this Surgeon, contrary to the advice of his fellow-practitioners, and to all the rules of operative medicine, preferred cauterization to the knife? At any rate, we may be permitted to think that such an operation, done by the most favourable method and at the most suitable moment, might have had some chance of success if there had been merely a union of the two ossa coccygis at their extremities and a common anus. Unfortunately, the author does not describe the internal organization, and does not furnish the slightest notion of the connexions of the vascular system.

While we are thus left in doubt as to the possibility of a separation by surgical means in a case of pygopagy, the extreme rarity of pygopages deprives us also of documents sufficiently complete respecting the circumstances of their birth. I think, however, I may affirm, by analogy, that they are ordinarily born before their time; and, above all, it is clear that the extreme complication of their organization must render the accouchement difficult and laborious, but not impossible. In a notice upon Hélène and Judith, an author deserving of credit (b) tells us that Hélène was born first, and escaped as far as the umbilicus, and that the rest of her body, along with the entire body of Judith, was not entirely disengaged until long after (c) The mother not only survived this laborious accouchement, but it is known, by divers evidences, that she afterwards gave birth to several well-formed and robust children.

Pygopagy, rare among men, is equally so among animals. Gurlt, in his important work on monstrosities among domestic animals, gives an example of pygopagy in a calf.

REPORT OF TWO CASES OF POISONING FROM THE INHALATION OF CHARCOAL-VAPOUR, WITH RECOVERY.

[To the Editor of the Medical Times and Gazette.]

Sir,—Two female servants, of the respective ages of 22 and (about) 55, having unwittingly placed a stove containing burning charcoal at the foot of their bed, retired to rest in perfect health (after having partaken of a light supper, viz., bread and butter), at half-past eleven, p.m., on the 27th ultimo; the room in which they slept was ill ventilated, and had the door, window, and chimney closed. Shortly after one o'clock, a.m., on the 28th, the elder person awoke, and experienced great coldness of the whole body, with intense headache and stupor; she had, however, sufficient consciousness to observe that her companion was vomiting most severely, and uttering sounds of great distress; these sounds had, in fact, aroused her from what, in all probability, would have been the sleep of death, and enabled her, with much difficulty, to get out of bed, when she was seized with copious purging; subsequently she managed to arrive at an adjoining bedroom, occupied by the nurse, where she fell on the floor, but appears soon to have rallied from her lethargic state.

The family became alarmed, and the lady of the house, on entering the room in which they had slept, found the younger servant unconscious, with the breathing almost suspended.

On my arrival I observed the room smelling strongly of the gaseous exhalations; the patient was delirious, respiration laborious, pulse 120, small and hard; the pupils were widely dilated, and perfectly insensible to the light of a candle placed immediately before them.

After some time she became partially conscious, and I was enabled to glean from her that she was suffering from severe coldness of the body generally, most violent headache, vertigo, and peculiar pricking sensations in the extremities; the vision also was very imperfect, and the hearing much affected.

After a short interval, she again relapsed into a state of delirious excitement, speaking incoherently and loudly; again another interval of partial consciousness ensued, of longer duration than the preceding one; in this manner the severity of the attack gradually subsided, and at ten o'clock the same morning the delirium and more urgent symptoms were relieved, and she complained chiefly of great depression and headache.

Remarks.—In the majority of cases recorded of poisoning from charcoal-vapour, we have no account of the phenomena attending the incipient condition of the attack, and no opportunity has been afforded of observing the progress of the seizure, persons generally having been found with life extinct, or in a hopeless state of profound coma, in consequence of the peculiarly rapid effects of the aërial poison.

In the present instances, at the outset, the gases were not sufficiently concentrated, or the poison of such intensity, as to produce complete asphyxia before vomiting supervened; and to this cause may be attributed the preservation of their lives; for had the stomach, in the case of the younger person, been less irritable, they, would, probably, have remained exposed to the noxious influence of the gases, and have been found dead in their bed.

The seizure of both patients was chiefly marked by great declension of animal heat, agonizing head-ache, lethargy, and maniacal excitement. The ingress of fresh air into the room, with the use of stimulants, soon relieved the more severe symptoms, and rendered the employment of artificial respiration, warm bath, cold affusion, or oxygen gas unnecessary.

In the one case it will be remarked, the vomiting was excessive; in the other there was an entire absence of nausea, but the poisonous agent appeared to find an outlet by the bowels. This may serve to explain the marked difference in severity between the symptoms manifested in the two patients.

The deleterious impression produced on the system of the younger sufferer, did not entirely cease for some days.

I am, etc.

W. H. Ashley, M.D. Edin., M.R.C.S.,
Hon. Surgeon to the Kensington Dispensary.

8, Boyne-terrace, Kensington-park,
November 1, 1855.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	3	2	10	3	2	8
North	490,396	2	6	13	23	3	8
Central ..	393,256	2	11	6	5	1	3
East.....	485,522	5	15	9	20	4	12
South	616,635	5	3	12	15	4	19
Total..	2,362,236	17	37	50	66	14	50

(a) Vide *Gemellæ mediantibus ossibus coccygis sibi invicem connatæ* in the Act. Acad. Nat. Cur., T. V. p. 445, obs. 133. Vide also other examples of pygopagy in the following works: *Notice touchant un monstre biforme* in the Acta Acad. Scient. Petrop. pro anno 1778, Part I. p. 41, being an account of a pygopage born in Russia, and dying at 2 months old, etc., etc., etc.

(b) Torkos. p. 311. This author attributes the misfortune of Hélène and Judith to the imagination of their mother, who, during her early pregnancy, had been struck by the sight of two dogs in the act of copulation. It is curious to remark that this strange explanation had been given long before in the case of another monstrosity something like pygopagy. See Rhodius, in the *Ephem. Nat. Cur.* Dec. II., ann. 5, app., p. 53. The observation, which is too imperfect to enable us to determine exactly the real nature of the monstrosity, has for its title "*Gemelli, canum instar, in utero cohærentes.*"

(c) I fancy that the delivery in such a case would be easily managed by bringing down the feet of the second twin as soon as the first had been brought down as far as it would come. But the real difficulty is to make out the exact cause of the delay, as I know from experience.—R. U. W.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, Dec. 18, 1855.

Mr. ARNOTT, President, in the Chair.

[Concluded from p. 634.]

MR. JAMES SALTER read a report (by Dr. Hyde Salter and himself) on Dr. Quain's specimen of

OSSIFIED PERICARDIUM.

The portions examined consisted of masses of bone-like hardness, but more friable than normal bone. A section under the microscope displayed homogeneous transparent globular masses, more or less fused together, and interspaces having crescentic outlines of black opacity. Upon filling the interspaces with Canada balsam they were obliterated, and the whole presented an agglomerated mass of globules adhering together, some deeply looming out of focus, others superficial and sharp, some isolated and round, others so fused together as to present only convex bulgings. Mr. Salter observed: "These special particles are not what they have been often misrepresented to be—particles of phosphate of lime in a web of fibrous tissue; for, if all the earthy material be removed by immersion in muriatic acid, an animal basis remains, representing all the forms of the original globules."

Dr. Odling, of Guy's, had made an analysis of the osteoid mass, and found that it contained about twice the amount of phosphate of magnesia, present in true bone, and that the animal basis was albuminoid and not gelatinous.

The microscopical appearances were illustrated by drawings.

Dr. Hare read a report on Dr. Gibbs's specimen of

ENORMOUS OVARIAN TUMOUR.

It had been found to consist, on the left side, of one huge cyst, and, on the right, of a solid growth. It had been developed from the left ovary, and adhered to the uterus, and other adjacent parts. The left Fallopian tube had been very much elongated by stretching over its surface. The entire mass weighed 106 pounds.

Dr. Hare also reported upon his examination of Dr. Van der Byl's specimen of

FIBRINOUS MASS IMPACTED IN THE CEREBRAL ARTERY.

It will be remembered that, in this case, a fibrinous concretion found in the middle cerebral artery, was believed to have been detached from the valves of the heart, and carried into the cranium by the current of the circulation. Dr. Hare's examination had led him to the conclusion that the mass had been formed where found, and had not come from the heart. The peculiar form of the body, which possessed three small rami, adapting themselves to the three trunks at the junction of the middle and anterior cerebral arteries;—its perfect homogeneity of structure, and yet more—the existence of a second body in the anterior cerebral artery of the same side, had led him to the opinion expressed. Both bodies were quite loose in the vessel, but the second one was of elongated form, and evidently moulded there. Supposing both to have come from the heart, it was, according to the doctrine of chances, extremely improbable that both should find their way into the same vessel. The microscopic appearance of both bodies was similar, consisting of granular fibrin.

Mr. Sibley brought before the Society two specimens of

MALIGNANT FIBROUS TUMOURS.

The first case was that of a man in whom it had been intended to amputate the thigh high up, on account of a large tumour growing from the bone. Death, however, occurred from chloroform. The tumour, which was very large, and was firmly attached to the bone, presented, on examination, the characters of an ordinary fibrous one. Neither by the naked eye nor by the microscope could any resemblance to the peculiar features of cancer be discovered. Numerous secondary growths were, however, found in the body. Several such grew from the ribs, and others were present in the lungs, liver, etc. Excepting that those in the lungs and liver had more numerous nuclei than those in other parts all possessed an identical structure. Mr. Sibley's second case resembled the first in its chief features. Numerous tumours had been found, all possessing a merely fibrous organization. Mr. Sibley remarked on the relation of these tumours, first described and classified by Mr. Paget, to true cancers, and seemed not inclined to admit that the fact of occurrence in many organs entitled them to the latter appellation.

Dr. Garrod showed specimens illustrating

THE PATHOLOGY OF CHRONIC GOUT.

An intemperate man, aged 45, by trade a painter, had died in University College Hospital, after having been subject to gout for fifteen years. The disease had begun in the lesser joints of the toes. His joints had for long been crippled by gouty deposits; numerous concretions existed in the ears, and he had repeatedly suffered attacks of bronchitis, which were relieved by anti-arthritic remedies. During an attack in 1851 an opportunity had occurred for examining his urine, and it was then found to contain albumen, and to be deficient in uric acid. The specimens shown illustrated the occurrence of deposit of uric acid and urate of soda, in crystalline form, very plentifully in the ligaments of various joints, and in the structure of the articular cartilages. In the latter position, the deposit came close to the superficial layer, but in no instance was it on the free surface. The kidneys were small in size, and granular; the ends of their pyramids were in many instances blocked up by deposits of urate of soda. Many of the joints of the fingers were anchylosed by deposits externally, in the fibrous and tendinous structures; in all such the articulation itself being free. The wax models, preparations, etc. were from the knee-joint, various joints of the toes, fingers, etc.

Mr. Gray stated, that in a case which he had once examined, in which almost all the joints were affected, the deposit had been detected in many of the bones; and wished to ask whether Dr. Garrod had found it there in his case.

Dr. Garrod: No. Several bones had been cut across, but showed no deposit.

Dr. Bence Jones mentioned a case, in which he had found urate of soda in crystalline form in the cartilages of the larynx, and also in the coats of the aorta.

Dr. Hyde Salter inquired whether in Dr. Garrod's case, in which the patient had suffered from gouty bronchitis, any examination had been made of the bronchial tubes, and their cartilaginous rings.

Dr. Garrod replied that many of the bronchial tubes had been slit up, but that no deposits had been found.

Dr. Wilks read a paper on

PERFORATION OF CŒCAL APPENDIX FROM AN INTESTINAL CONCRETION.

A man, aged 36, was admitted, under Dr. Barlow, into Guy's Hospital, with acute peritonitis, and died in a few hours. The symptoms had occurred suddenly six days before. On post-mortem examination, an intestinal calculus was found protruding from the cœcal appendix, and another was lying loose beside it. The concretion, when a section was made of it, was found to consist of concentric layers, the internal being of a whitish colour and the external brownish. They were very friable, and presented no particular formation either to the eye or the microscope, the powder being granular and amorphous. Chemically, it was composed of phosphate of lime.

Dr. Wilks also exhibited (for Mr. Hilton) a

PAPILLOMA OR WARTY TUMOUR FROM THE PALATE.

It was about the size of a bean, and resembled a cauliflower excrescence, or the ordinary epithelial growth as seen on the penis and other parts. It was composed of a number of buds or lobules, like grapes on the bunch. Each of these, by the microscope, was seen to be a new papillary growth, consisting of a number of epithelial cells, and having a loop of capillaries in its centre. It was thus seen to resemble similar growths on the skin.

Dr. Peacock exhibited a preparation of

MALFORMATION OF THE HEART,

consisting in contraction of the pulmonary orifice, deficiency in the septum ventriculorum, and an open ductus arteriosus.

The specimen was removed from a girl, 19 years of age, who had been under Dr. Peacock's care at St. Thomas's Hospital, and who had died of cholera. She had presented, from birth, very characteristic symptoms of malformation of the heart, and from the physical signs, the form of malformation had been, to a great extent, diagnosed during life. On examination, the heart was found to be fully double its natural size, weighing eighteen ounces avoirdupois. The enlargement was mainly due to the great hypertrophy and dilatation of the sinus of the right ventricle, while the infundibular portion of that cavity was very small, the walls of the right ventricle being thicker and firmer than those of the left. The pulmonic orifice was very much contracted, admitting only of the passage of a cylinder eight lines in circumference; and there were only two semilunar valves. The septum of the ventricles was deficient at the base, so that the aorta communicated with both ventricles. The foramen ovale was entirely closed, but the ductus arteriosus admitted the passage of a large probe. Dr. Peacock ascribed the deficiency in the inter-ventricular septum and the open state of the ductus arteriosus to the contraction of the pulmonary aperture, and stated that the latter condition was a much less frequent result of obstruction at the pulmonary orifice than the open foramen ovale, and that the open ductus arteriosus was still less common in persons of the age of his patient.

Mr. Gamgee showed drawings, etc., from a case in which had been found

LARGE SCABS ON THE MUCOUS MEMBRANE OF THE CŒCUM OF A HORSE.

The animal had died of pneumonia, one of the earliest of its symptoms having been an eruption of herpes phlyctænode about the lips. On the surface of the mucous membrane were found numerous large raised scabs, circumscribed and detached from each other. Beneath these were superficial ulcerations, and often numerous worms, of a species to which the horse is very liable. The appearances presented by these scabs on a mucous surface were very peculiar, and were believed to be very unusual.

Dr. Bristowe remarked upon the interest which, to his mind, attached to the fact that ulcerations of the intestine had been found after death from pneumonia. He believed that in the human subject the conjunction was very frequent.

Mr. Henry Thompson showed an example of

SACCULATED BLADDER.

The man from whom it had been taken had long suffered from a stricture of the urethra which he had neglected. Only a few weeks before death he came under Mr. Thompson's treatment at the Marylebone Infirmary. At the autopsy the bladder was found contracted, hypertrophied, and with a sacculus on its left side almost as large as itself.

A vote of thanks to the exhibitors for the evening having been put, the meeting adjourned.

LIVERPOOL MEDICAL SOCIETY.

October 18, 1855.

PATHOLOGICAL DEPARTMENT.

Mr. Desmond exhibited a

SCIRRHOUS TUMOUR OF THE BREAST,

Removed by him on September 26, and interesting principally on account of its having attained its present size (the tumour being as large as a healthy mamma) since the middle of July, when it was first noticed.

Mr. Long mentioned a case recently under his care at the Royal Infirmary:—A man, aged 25, received a stab, dividing the cartilages of the eighth and ninth ribs. Hæmorrhage, both externally and internally (as proved by the advancing dulness) having continued a considerable time, the wound was enlarged; the divided ends of the cartilages everted; and a wounded intercostal artery tied. A good deal of constitutional disturbance took place, and a very free discharge of serous fluid flowed for some time from the wound, but the man eventually left the Infirmary cured.

MEDICAL DEPARTMENT.

Mr. Long read a paper on

NEUROMA AND PAINFUL SUBCUTANEOUS TUMOUR.

After referring to the phenomena connected with these tumours, as described by Dupuytren, Paget, and Smith, etc., the following case was adduced as illustrating the subject:—About twelve years since, a lady, aged 25, was seen in consultation by Mr. L. She was suffering from a tumour at the base of the posterior triangle of the right side of the neck. Its size was that of a pullet's egg, its long diameter in a line from the shoulder to the neck; it was movable, not painful; the contiguous skin free and healthy. Her general health was good. The patient stated that it had existed three years, and referred its origin to a slight twist of her neck, when she felt something give way, and found the next morning that she could not put her right arm behind her. In a week she felt a lump the size of a pea on the spot occupied afterwards by the tumour, and she began to feel dull aching pain in the course of the biceps.

Removal of the tumour was decided upon, and, the integument having been divided, a distinct capsule was exposed. This was cut through, and easily detached from the tumour, which presented a glistening white surface, and was seen to be attached at its extremities by a nerve which passed through its long axis. Pressure above and below the tumour occasioned pain in the thumb and finger. Some uncertainty being felt as to the proper course of proceeding, further advice was sought, and it was decided to leave the tumour still *in situ*. The wound was closed, and healed well. In March last, the weather being very cold, the pain in the tumour began to increase, and changed from dull aching to shooting pain, extending much further than before. On August 10, the tumour was removed by Mr. Minshall, having increased, in the twelve years which had elapsed since the previous operation, to the size of a closed fist. After removal, the tumour was found to be invested by a sac, which was free, except at the extremities, where it was connected with a nerve which traversed the tumour. Another nerve lay on the inferior surface of the sac, flattened and apparently incorporated with the sac, but free from the tumour. The tumour was of firm consistence, and straw-coloured. The nerve entering was about the size of a crow-quill, and divided into fibres before blending with the tumour. At its emergence, the size of the nerve was not so great. A section showed that there were two lobes, one somewhat embracing the other. After the operation there was a diminished sensibility over the shoulder, front, and outside, of upper arm, and radial side of fore-arm; coldness of upper arm; paralysis of deltoid and biceps. A case somewhat analogous to the above occurred in the Infirmary in 1836:—E. I., aged 21, received, two years since, a blow on the inner side of the left arm, below the armpit. In a month she found a small, movable, and painful lump beneath the skin. Before her admission, it had increased to the size of a walnut, the pain had become intense, and she had lost the use of her arm. A year was spent in unsuccessful efforts to alleviate the constant and excruciating pain which she suffered, and then the arm was amputated. A tumour was found in the sheath of the musculo-spinal nerve, and traversed by that nerve. The tumour was firm, almost fibro-cartilaginous in its character. A month after the operation, pain in the stump and in the side of the neck and shoulder came on, and remained during three years, at the end of which time she was lost sight of. For three years before the injury she had been subject to constant pain in the head. Three cases of painful subcutaneous tumour occurred at the North Dispensary in 1838-9 and '40. No. 1.—A woman presented a small, hard tumour beneath the skin, behind the inner malleolus. The slightest touch occasioned pain, shooting as high as the groin, and so severe as to nearly make her faint. She declared she had not slept for six weeks. The tumour was removed, the pain ceased instantly, and never returned. The tumour was of cartilaginous appearance. No. 2.—Also a female, presented a similar tumour on the forearm, but refused to have it removed. No. 3.—A girl, aged 12, presented a hard, movable tumour, the size of a pea, in the space between the fourth and fifth ribs. The pain from it was paroxysmal, and most intense. She was to have it removed the next day, but, in the mean time, an access of great agony having occurred,

she was sent to the Northern Hospital. Six leeches were applied to the tumour without affording any relief; and, after many hours of agony, she died, apparently exhausted by the pain. A most minute post-mortem examination failed to detect any trace of disease to account for death. The tumour was of cartilaginous appearance, but no nerve could be traced to it. Mr. Long then referred to the irritable mammary tumour, as somewhat analogous to the preceding cases, and related the case of a woman, aged 35, who suffered intense pain in the left breast, in which there existed, a little to the left of the nipple, a tumour, the size of a horse-bean, movable, apparently connected, by a peduncle, with the gland substance, acutely painful when touched, and the seat of paroxysmal, lancinating pain, even when not meddled with. Constitutional treatment improved the general health, but the pain became more intense. The tumour was removed; the pain was much relieved, and when she left the Infirmary had entirely ceased.

After the reading of the paper a discussion took place, principally on the question of the advisability of removing the tumour by disentangling it (when possible) from the nerve, or removing a portion of nerve with the tumour.

Mr. E. R. Bickersteth mentioned a case in which he had removed a tumour, the size of a hen's-egg, from the sciatic nerve of a boy, aged 9, by dissecting the tumour from the nerve in which it lay. The case did well. He suggested that an incision, dividing the nerve above the part from which a tumour had been removed, might prevent the transmission of inflammation to the trunk of the nerve.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding his Return of Sick for the week ended 8th ult., states that

The Army continues healthy and there is little variation in the number of admissions, and only one in the number of deaths this week as compared with that of the preceding one.

The weather has been wet and stormy, which has occasioned some little variation in the admissions under the different heads of disease. Dysentery and rheumatism, for instance, have increased, but the following abstract will show how nearly the other classes of disease assimilate to those of the preceding week :—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	194	9	194	19
Pulmonic	177	4	172	2
Diarrhœa	167	6	173	4
Cholera	7	6	9	4
Dysentery	48	2	29	1
Rheumatism	65	—	56	—
Wounds and Injuries(a)	45	7	43	4
Ophthalmia	41	—	31	—
Other diseases	349	4	350	3
	1093	38	1059	37

The total number of deaths, though only one more than last week, shows some variety. The mortality under the head of fever has decreased one-half, while that of pulmonic complaints and dysentery has been doubled, and that of diarrhœa and cholera increased one-third.

Some accidents in the dockyard have occasioned an increase under the head of wounds and injuries; and among the deaths is a curious case in a man of the Artillery, who received an accidental pistol shot over the left eye on the 2nd November. The wound healed kindly, and he had not a single untoward symptom until the 30th, when coma came on, which increased until the 2nd of December, when he died; and on examining his body after death the ball was found lodged at the base of the brain, where it had produced an abscess which proved fatal. This is the only casualty which occurred in the Royal Artillery during the week. No casualty occurred in the Cavalry.

Five took place in the Third Division: 1 from consumption, 1 from fever, 1 from cholera on the twelfth day of the disease, 1 from water on the chest, and 1 from inflammation of the lungs.

(a) Twenty were transfers from Regimental to General Hospital.

In the Highland Division 6 casualties have occurred this week, which is a considerable increase on the mortality of the division, which has been remarkably small for the last three months.

One man died of common continued fever, one of delirium tremens complicated with inflammation of the lungs, 1 of consumption, 1 of dysentery, 2 of cholera in the 92nd. No other cases of cholera had occurred in the regiment for three days prior to the closing of the weekly statement; it is, therefore, to be hoped the disease will not extend.

In the 2nd Division, a case of diarrhœa in a scrofulous boy proved fatal, and in the 82nd Regiment, at Balaklava, which is attached to this division, a case of cholera and one of fever died.

The 82nd continues to have a heavy sick list, but the number of casualties has not been very great.

In the 3rd Division only two casualties occurred, one from epileptic fits, and the other the result of recent severe gunshot wounds of the thigh; diseases of the eye have decreased from 26 to 16 in this division.

In the 4th Division two casualties occurred, one from fever and the other from cholera.

In the Light Division three deaths occurred, 1 from cholera, 1 from chest affection, and 1 from dysentery.

The Land Transport Corps has as usual had a heavier sick list than any of the divisions of the Army, and have lost more men; 5 have died from fever, 5 of diarrhœa, and 1 of injuries received.

Ophthalmia has increased during the week. The apparent increase of admissions arises from the transfer of cases from Regimental to General Hospitals.

The disease does not appear to be of a contagious nature, but seems to be owing chiefly to atmospheric causes.

The following are the ratios of sickness and mortality during the week :—

The admissions to strength have been	2·07 per cent.
Deaths to strength	0·07 ,,
Exclusive of wounded	0·05 ,,
Ditto of wounded and Land Transport Corps	0·04 ,,
Proportion of sick to well	5·78 ,,
Exclusive of wounds	4·70 ,,

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, December 27, 1855 :—

Baillie, Neil Benjamin, India.
Cockeroft, David Midgley, Todmorden.
Oldfield, Edmund, Bascombe Lodge.

DEATHS.

Babington.—January 1st, at 13, Queen's-gardens, Bayswater, George Gisborne Babington, Esq., late Surgeon to St. George's and the Lock Hospitals. He was loved by many friends, trusted by many patients, and respected by all who knew him. With a highly reasoning mind, great common sense, and unbounded kindness of heart, he was the counsellor of his friends, the adviser of the poor; and his aim through life was to do good and to find truth.

Bompas.—Sept. 29, Joseph Carpenter Bompas, M.D., aged 32, at sea, in S. lat. 24° 39′, E. long. 76° 46′, on his voyage from Adelaide to England, whither he was returning for the recovery of his health.

Professor Alison.—We are glad to learn that the Senatus Academicus of the University have voted to Dr. Alison the sum of £250 a-year, as a retiring allowance, from funds at their disposal.—*Scotsman.*

Faculty of Medicine of Paris.—It may be interesting to our readers to peruse a list of the Professors for the Winter Course, which commenced November 16, 1855 :—*Anatomy*—Denonvilliers; *Physiology*—Bérard; *Pharmacy*—Soubeiran; *Medical Chemistry*—Wurtz; *Legal Medicine*—Adelon; *Medical Pathology*—Guillot; *Surgical Pathology*—Gerdy; *General Pathology and Therapeutics*—Andral; *Operations and Apparatus*—

Malgaigne; *Medical Clinic*—Bouillaud, Piorry, Rostan, Trousseau; *Surgical Clinic*—Laugier, Jobert, Velpeau, Nélaton; *Midwifery Clinic*—P. Dubois.

Royal Medical Benevolent College.—On Friday a deputation from the Council waited on the Right Honourable the Lord Mayor, to request that his Lordship would preside at the fourth Anniversary Festival of this much needed Institution, which his Lordship kindly consented to do, and has appointed Wednesday, the 2nd of April next, for holding the Festival, at the Freemasons' Tavern. As it will be the first festival since the opening of the College, there will doubtless be a very large muster of its most influential friends and supporters on the occasion.

On Monday morning, some thieves succeeded in stripping and carrying away from the roof of the Dissecting School of Middlesex Hospital, about 60lbs. of roof lead.

In the Eastern parts of London, the population has reached the extraordinary density of 185,751 persons to the square mile.

The new Act for the Municipal Government of the Metropolis, came into operation on New Year's Day.

The Passage of the Ingour.—At the Battle of the Ingour, which took place on the 6th of November, between the Turks under Omar Pasha and the Russians, there was but one English Surgeon present, Mr. Edwards, a member of the British Medical Staff attached to the Ottoman Army. During the day and night following he was actively employed, having to perform several serious operations in the field. The next day he established a Tent Hospital immediately in the rear of the army, and undertook the sole charge and treatment of all the wounded, amounting to between two and three hundred. During the following week his labours were incessant, having no one to aid him but his assistant, Mr. Turner. On the 15th the whole army moved in advance, and Mr. Edwards conducted the wounded a 3 days' march to Tchinserai, where he had the satisfaction of depositing them in safety. The next day they were placed on board a Turkish steamer, and conveyed to the Hospital at Soukoum Kaleh. Mr. Edwards returned to join the army on its march to Kutais.

Statistics of Cholera at Vienna:—

Year.	Cases.	Recoveries.	Deaths.
1831	4362	2174	2188
1832	3440	1470	1970
1836	7833	5517	2316
1849	2701	1584	1117
1850	2192	1218	974
1854	5255	3525	1713
1855	5487	2430	2450

The Government Decision respecting the University of London.—The following letter was some time since addressed by the Home Secretary to Lord Burlington as Chancellor of the University of London:—"Whitehall, 18th August, 1855. My Lord,—I have the honour to inform your lordship that I have had under consideration the correspondence which passed some time since in reference to the University of London; and I beg leave to state to your lordship that, as to the legal difficulty adverted to in the opinion given by Mr. Tomlinson, I am prepared to advise the crown that, in the event of a new charter being issued to the University, a clause be inserted in it making the consent of the majority of the senate necessary to the surrender of the charter, provided that, upon an examination of the law, it should appear that a clause of this nature can be made effectual for its object; and that, with respect to the admission of graduates into the senate, I propose that the new charter should provide that every alternate vacancy in the senate shall henceforth be filled up by the crown with a graduate of the University of London, until the number of graduates in the senate shall amount to one-fourth of the total number.—I further propose that every such graduate appointed by the crown shall be selected from a list of five graduates to be chosen by the graduates at large.—I have the honour to be, my lord, your lordship's obedient servant.—G. Grey."

On the 4th of this month there were fifty cases of cholera at St. Petersburg, notwithstanding the coldness of the weather.

The "Index Expurgatorius."—An official paper contains a decree of Cardinal de Andrea, damning and proscribing, among others, a work entitled, "Fisiologia e Patologia dell' Anima Umana."

Cholera was raging with great virulence at Valentia, but at Laguayra and Caracas it had considerably abated.

Mortality Notabilia.—The total number of deaths registered in London in the week that ended last Saturday was 1485. In the ten corresponding weeks of the years 1845-1854 the average number was 1190, which, if raised in a certain proportion for comparison with last week's deaths which occurred in an increased population, becomes 1309. The result obtained is an excess in the rate of mortality now prevailing, as compared with the average rate for the last week of the year. Before the cold weather, which was recently experienced, set in, the weekly deaths were about 1100; last week the deaths registered exceeded that number by nearly 400. This increase is to be referred, in part, to the operation of natural causes in producing or aggravating diseases, and thereby increasing the rate of mortality, and partly to a cause which is periodical and incidental to the registration. At the end of the quarter there is an influx into the register books of coroner's cases, which, if they had been registered when they occurred, would have been spread more equally over the last and previous weeks. Both bronchitis and pneumonia exhibit an increase in the cases in which they were fatal over those of previous weeks. The former disease caused 119, 119, 161 deaths in three preceding weeks; in the present return the number has risen to 204.

Births.—The births of 805 boys and 758 girls, 1563 children, were registered. Average 1332.

Meteorology.—The mean height of the barometer in the week was 29·477 in. The mean temperature, which in the previous week was 28·2°, was last week 44·8°, which is 7·2° above the average of the same week in 38 years (as determined by Mr. Glaisher). The highest temperature occurred on Friday, and was 52·4°. The lowest was 24° on Sunday (the 23d). The mean temperature was above the average on every day of the week, and on Friday this excess was 10·7°. The mean dew-point temperature was 41·7°, and the difference between this and the mean air temperature was 3°. The wind blew from the south-west. The amount of rain was 0.83 in., which fell almost entirely on the first four days. The amount of horizontal movement of the air on Wednesday was 325 miles, for the week, 1370 miles.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, December* 29, 1855.

Causes of Death.	In the Week ending Saturday, December 29, 1855. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 44·8						° 38·3
All Causes	1485	625	207	242	308	61	1189·5
Specified Causes	1442	624	207	242	308	61	1171·9
Diseases:—							
1. Zymotic Class	271	215	26	16	11	3	241·5
2. Dropsy, Cancer, and others of uncertain seat	61	6	8	23	21	3	48·3
3. Tubercular Class	176	58	64	44	10	..	165·3
4. Of Brain, Nerves, etc.	136	56	15	23	34	8	125·3
5. Of Heart, etc.	64	5	14	16	26	3	43·5
6. Of Respiratory Organs	348	140	24	57	113	14	245·6
7. Of Digestive Organs	68	24	10	14	20	..	64·1
8. Of Kidneys, etc.	15	1	4	5	5	..	13·3
9. Of Uterus; viz. — Puerperal Disease, etc.	9	..	5	2	2	..	11·7
10. Of Joints, Bones; viz.— Rheumatism, etc.	5	..	2	1	2	..	7·8
11. Of Skin, etc.	5	2	..	2	1	..	2·2
12. Malformations	2	2	..	..	..	..	3·2
13. Debility from Premature Birth, etc.	31	30	..	1	..	..	26·4
14. Atrophy	33	20	..	3	10	..	24·1
15. Age	64	..	..	..	36	28	53·2
16. Sudden	31	15	4	6	6	..	25·4
17. Violence, Privation, etc.	123	50	31	29	11	2	71·0
Causes not specified	43	1	..	..	..	..	17·9

DEATHS IN PUBLIC INSTITUTIONS for the Week ending December 22 and 29 :—

	In the Week ending Dec. 22.			In the Week ending Dec. 29.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses	64	85	149	79	69	148
Prisons	..	1	1	2	..	2
Military and Naval Asylums	11	..	11	9	..	9
General Hospitals	40	33	73	64	37	101
Hospitals for Special Diseases	7	6	13	4	3	7
Lying-in Hospitals	..	1	1	..	..	..
Military and Navy Hospitals	..	..	..	8	..	8
Hospitals and Asylums for Foreigners	1	..	1	1	1	2
Lunatic Asylums	10	3	13	8	2	10
	133	129	262	175	112	287

BOOKS RECEIVED.

Mesmerism in its Relations to Health and Disease. By William Neilson, Esq. Edinburgh: Shepherd and Elliott. 1855.

Braithwaite's Retrospect of Medicine. Vol. XXXII. July to December. 1855.

The Journal of Psychological Medicine. New Series. January. 1856.

The Pharmaceutical Journal. January. 1856.

The Edinburgh Medical Journal. January. 1856.

TO CORRESPONDENTS.

It is requested that all communications intended for this Journal be addressed to the Editor, No. 11, New Burlington-street.

Dr. Christopher Fleming has requested us to notice, that in the early part of the year 1853, he treated successfully a case of Prolapsus Ani by the local application of concentrated nitric acid. The case is recorded in the 3rd Number of the 1st Volume of the *Dublin Hospital Gazette*, published on the 1st of March, 1854. In that case, Dr. Fleming applied the acid to the mucous membrane of the protruded bowel, and he considers that this portion of the intestine possesses so little sensibility as to render the operation almost painless.

N. B.—If the Academy alluded to possesses the legal right of granting degrees in medicine, you are entitled, by courtesy, to the title of Doctor in this country.

Mr. Thomas Hunt will receive a private note.

Inquirer, M.D.—We do not know of any institution of the kind.

Erratum.—In the letter of our Edinburgh Correspondent last week, page 651, 1st column, last line, for Dr. Christison and Mr. Lagan, read Dr. Christison and Dr. Douglas M'Lagan.

A Metropolitan Member writes us a note complaining that the resignations of Members of the Provincial Medical and Surgical Association will not be accepted unless they are ratified, and that without such ratification gentlemen will still be held as belonging to the Association, notwithstanding their resignation. The writer concludes by remarking: "Alas! that the most numerous, respectable, and useful voluntary Association of the members of the Medical Profession should thus be jobbed out of its existence!"

Junius.—We cannot publish the letter containing the remarks on Dr. Rigby's paper without the name of the writer; and even if the name were appended, we should think it our duty to modify considerably some of the expressions employed.

M.D.—We have admitted a letter, complaining of the management of the Medical Protection Society, and we have also published an answer from Mr. Capes, the Secretary of the Society. We think that, in all common fairness, any further attacks upon the Society should be accompanied (if printed) by the signature of the writer.

The Provincial Medical and Surgical Association.—We have received numerous communications from members of this Association, expressing great annoyance at the present proceedings of the Council; and we will publish them if they are accompanied by the names of the writers.

A. X. Z.—We cannot advise a member of our Profession to advertise a Dispensary for the Working Classes in a newspaper. However benevolent his motives might be, they would be very liable to misinterpretation.

Dr. Quain requests us to state that the case of "Absent Uterus" alluded to by Dr. Ramsbotham in the last number of the *Medical Times and Gazette*, was not communicated by himself (Dr. Q.), but by Dr. Ormerod, as stated in our report of the proceedings of the Pathological Society.

The "Series of Cases illustrating the Connexion between Brown Skin and Disease of the Supra-renal Capsules," will be resumed in our Hospital Reports the week after next.

Dr. Hibbert Taylor's paper has been received.

The Pharmaceutical Journal.—The last number of this Journal contains a communication, said to have been sent by a contributor, which is a *verbatim* reprint of a leading article of ours on the Burdon Slow Poisoning case. From the respectable character of the Pharmaceutical Journal, we are sure that this occurrence must have been accidental.

COMMUNICATIONS have been received from—

Dr. HERBERT BARKER; A. X. Z.; Mr. J. TUFFNELL; Mr. JAMES LAIRD; Mr. CLAUDE WHEELHOUSE; Mr. W. ADAMS; M.D.; Mr. THOMAS HUNT; N. B.; THE UNIVERSITY COLLEGE MEDICAL SOCIETY; Dr. FLEMING; Mr. J. Z. LAURENCE; Mr. J. BURTON; Dr. ANDREW SMITH; JUNIUS; Dr. R. H. TAYLOR; ZETA; Dr. VENABLES; Mr. HENRY SMITH; A METROPOLITAN MEMBER; B.; A. B. C.; A COUNTRY PRACTITIONER; THE ROYAL INSTITUTION; THE ROYAL PANOPTICON; Dr. RIGBY; THE SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; THE ROYAL MEDICAL BENEVOLENT COLLEGE; THE GEOLOGICAL SOCIETY; T. E. A.; Mr. JOSEPH WALKER; S. B.; Dr. H. BENCE JONES; Dr. BRONNER.

APPOINTMENTS FOR THE WEEK.

JANUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
5. SATURDAY	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.
7. MONDAY		EPIDEMIOLOGICAL SOCIETY, 8 p.m.: Mr Tucker "On the Prophylaxis of Cholera by some of the Vegetable and Mineral Acids."
8. TUESDAY	Operations at Guy's, 1 p.m.	ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. ZOOLOGICAL SOCIETY, 9 p.m.
9. WEDNESDAY	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	NORTH LONDON MEDICAL SOCIETY, 8 p.m. Nomination of Officers for Ensuing Year. Mr. Zachariah Laurence "On the Pathology of Cancer." GEOLOGICAL SOCIETY, 8 p.m: Subjects—Mr. Sorby "On the Physical Geography of the Tertiary Estuary of the Isle of Wight."—Mr. E. W. Binney "On the Permian Rocks of the South of Scotland." LITERARY FUND, 3 p.m.
10. THURSDAY	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	UNIVERSITY COLLEGE MEDICAL SOCIETY, 8 p.m.: Mr. Thorogood "On the Treatment of Erysipelas." ROYAL SOCIETY, 8½ p.m.
11. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	ASTRONOMICAL SOCIETY, 8 p.m.

ORIGINAL LECTURES.

ON FUNCTIONAL DISORDERS OF THE NERVOUS SYSTEM.

By J. RUSSELL, M.D.

Lecturer on Pathology in Sydenham College, Birmingham; formerly Senior Physician to the General Dispensary.

Lecture I.

Gentlemen,—The Disorders of the Nervous System in which we are able to explain the symptoms by structural change constitute, if I mistake not, a small proportion of this class of diseases; in by far the larger number of instances, there is either no perceptible organic change whatever, or none which is adequate to explain the phenomena. A patient may suffer from violent delirium, from convulsions, from loss of muscular power; he may lose his consciousness, or one or all of his senses may be impaired or perverted; he may fall into a fit of epilepsy, or into a state of madness; and yet, if he die, we may find nothing in the condition of the nervous system apparent even to microscopic examination, to afford a satisfactory explanation of the phenomena we have witnessed.

I believe I may say, that every symptom which the nervous system can originate may present itself under such circumstances; nor is the nervous system involved alone, for as every organ in the body is more or less under the influence of that system, the disorders to which I refer may manifest themselves by derangement in the function of some remote organ, and may even assume all the characters of structural disease.

Let me be clearly understood; there is not one of the symptoms I have mentioned, whether connected with the nervous system immediately, or whether seated in some other organ of the body, which may not be caused by real structural disease; but they may be, and they often are, present as mere nervous derangements, without any change of structure sufficient to account for them. I use the words, *sufficient to account for them*, emphatically, because it is by no means unusual to meet with visible alterations in the nervous centres which, nevertheless, have had no share in producing the disorder in question; and much error has crept into this branch of pathology from assuming that the presence of such changes necessarily places them in the position of an efficient cause. Some of the structural changes to which I refer, are really a consequence of the nervous derangement itself—they depend upon perverted nutrition, the necessary effect of perverted function; others indicate depraved nutrition, common to the nervous centres with every other organ of the body; a state, indeed, of general cachexia; while others are mere coincidences, produced by the particular mode of dying, by inordinate muscular effort, by certain states of blood, or even by the position of the body after death.

The most common of such appearances met with after death in the nervous centres are—a shrunken condition of the brain, or unnatural firmness of texture; certain changes of colour; opacity of the membranes; effusion of serum; unusual fulness of the blood-vessels;—these, and other changes, though unquestionably capable of being produced by active disease, may yet occur as mere accidents, bearing no definite relation to the symptoms, and in the same disease being as often absent as present; they therefore require corroborative evidence before they can be accepted as having caused any of the symptoms, and thus stand in direct contrast with those structural alterations, red softening, effused lymph, pus, or blood, which have hitherto engaged our attention.

This large and heterogeneous class of diseases which at present engages our attention possesses many points of great interest, apart from the difficulty of explaining the origin of the symptoms; the cases it includes present the greatest diversity of character; they may be marked by extreme exaggeration of the natural functions of the nervous system, or of some other and distant organ, raving, convulsion, pain, excessive secretion, etc.; or by equally diminished activity of function; or again, by strange perversion of function, phantoms, oddly-disordered movements, depraved appetite, caprice and perversion of judgment or of will. Another very striking, but often very alarming feature in the history of many of them is the suddenness of their invasion; a single moment may effect an entire change in the condition of the sufferer, plunging him into perfect unconsciousness, as in the epileptic fit; or tearing him by violent spasm; or hurrying him into a state of maniacal delirium. Many, again, are singularly capricious and uncertain in their course, and in the phenomena they present; and lastly, not a few are disorders of alarming severity.

With respect to the consequences they entail, it by no means follows that because they do not originate in structural change, therefore they are free from peril; the very opposite is the case in many instances; some, indeed, hardly rise above the class of annoyances or inconveniences, but others threaten the integrity of the mental or bodily powers, or destroy life, either speedily by rapid consumption of nervous force, or more slowly through the mysterious influence which the nervous system exercises over all the vital processes.

Now the question we have to discuss, in reference to the origin of these mysterious diseases is this—Is there anything in relation to the nervous system which may assist in explaining its liability to fall into such unnatural action, without the infliction of any apparent organic change?

In replying to this question, the first consideration which I shall submit to you is the following:—That the nervous tissue is extremely intolerant of any change in those conditions on which its healthy nutrition depends. Whenever the nutrition of the nervous tissue falls below its healthy standard, the several organs which that tissue composes, are peculiarly liable to fall into disordered action on even the most trifling provocation. Dr. Todd (a) has particularly insisted upon the fact, that disorders of the nervous system are especially apt to occur when an individual is labouring under the influence of unhealthy conditions affecting the nutrition of the body in general, or of the nervous centres in particular; thus, he observes, convulsions most frequently occur in ill-nourished or otherwise unhealthy children; chorea exhibits itself under similar circumstances, and especially before the system has consolidated itself by those changes which occur at the period of puberty, or when puberty is imperfectly developed; the tetanus incidental to new-born children was expelled from the Hospital at Dublin, simply by attention to sanitary measures.

In these, and a variety of similar cases, the disorder of nutrition, though probably not the immediate cause, yet took the most important share in the production of the disorders, the actual exciting cause being comparatively insignificant in its operation.

The most essential conditions for the healthy nutrition of the brain and nervous system are two—a full supply of healthy blood, and a normal state of functional activity. At that part of the central organs where the nervous force is probably generated, namely, at the line of junction between the grey and white matter, the supply of blood is especially abundant, showing how essential is the vitalizing fluid for the production of nervous force: faintness, convulsion, delirium, are consequences which attend upon deficient supply of blood, and, in cases of languid circulation from feebleness of the heart, or of defective circulation in the brain, from disease of its arteries, nervous derangements, of the most varied character, are prominent features in the symptoms.

An impure state of the blood, from any cause, is a frequent element in nervous diseases; it is often an efficient cause. There is scarcely a symptom which we may not produce, at will, by means of certain poisonous agents, and these agents we

(a) Lumleian Lectures. 1849.

are often able actually to discover in the blood. Thus, delirium, convulsions, coma, headache, etc., are constantly present in contagious fevers; a fearful train of nervous symptoms are consequent upon the absorption of the saliva of the rabid dog; and spectral illusions and delirium characterizing delirium tremens, result from the circulation of alcohol in the brain. These facts have been ably illustrated in a recent work, and have been made the groundwork of valuable observations touching upon the subject of education. "If dark-coloured or venous blood be substituted for it, (scarlet or arterial blood,) and transmitted to the brain by the arteries, the animal lapses—I will not say into a state of unconsciousness, for of that we know nothing,—but into a state of total insensibility to external impressions. This fact being established, we cannot be surprised that blood of an improper quality, or containing something which healthy blood should not contain, may disturb the functions of the brain, so as even to influence the mind itself" (b).

A second observation I have to make is, that the nervous system is highly sensitive to external impressions, especially when labouring under the unfavourable nutritive conditions I have just described; and it is also very important for us to remember that, in consequence of the intimate connexion between the nervous centres, and all parts of the body, which the nervous system is so artfully arranged to effect, these impressions may be derived from the most distant part of the body.

In the same manner as inflammation of the surface of the lungs causes pain in the shoulder, or as irritation of the uterus, or the passing of a calculus, may cause obstinate vomiting, so irritation of any distant organ may concentrate itself entirely upon one or other of the large nervous masses. Thus I have seen obstinate convulsions in a child cease on the evacuation from the rectum, through the means of an injection, of several plum-stones. Tetanus has not infrequently resulted from a slight wound, or other trifling injury, to a part richly supplied with nerves. But in all these cases I believe that the irritation is not, of itself, equal to produce the effect in question; some other cause must generally be present, and must have exerted a predisposing influence. This cause will, I think, in most instances at least, consist either in a lowered or depraved state of nutrition in the nervous system, or in the entire body, or else in a preternaturally excitable condition of the nervous system, inherited or acquired. Thus Dr. Johnson (Lectures on Therapeutics, etc., College of Physicians, 1853) describes the case of a woman who was seized with epilepsy after intense anxiety, occasioned by the illness of her husband, which occurred at the time she was lying-in. For two years the fits continued, sometimes at the rate of four in a day. She was entirely cured by the passage of a large tapeworm. While I was writing this lecture, I was called to a fine young man, but habitually intemperate. He had suffered for two days from severe cholera; on the following day, he insisted upon a meal of mutton chops and porter; the irritation produced by this imprudent diet upon his irritable intestines, brought on a state of epilepsy, (for the first time in his life,) and this state continued, with rapidly recurring fits, and with continued insensibility, for eight hours. I opened his bowels by an enema, and consciousness returned with the first stool. It was, indeed, a striking circumstance, to see a man thus entirely shut off from all communication with the external world, by irritation propagated from his bowels. In both these cases it is highly probable that the irritation of the bowels would not have been equal to producing so serious a consequence, but for the preparation effected in the nervous system, in the first instance, by anxiety,—in the second, by intemperance. The course of a case of hydrophobia also affords a striking instance of extreme sensibility of the nervous system to every external influence, produced by a poison in the blood; I have seen a patient, suffering from this malady, complain of the draught of air through a key-hole. Poisoning by strychnine, too, I have seen attended by a condition in which the slightest touch gave rise to general spasms, and the phenomena of tetanus are pregnant with illustrations of the same fact, a paroxysm of spasm may be produced by the act of micturition, or of defecation. Many of the animal poisons exert a predisposing and a direct influence at the same time; predisposing, by injuring the nutrition of the blood, and exciting, by their immediate influence, upon the nervous matter. Alcohol, and the constituents of the urine, are instances. Both these agents destroy the blood globules, and act as direct poison to the nervous tissue.

The various nervous diseases to which children and females are especially liable, afford examples of the predisposing influence exerted by a naturally irritable and susceptible condition of the nervous tissue.

There is one class of impressions from without to which the nervous system is particularly alive, I mean impressions derived from atmospheric variations, and especially from cold and damp; neuralgia, in particular, often owns this influence as its immediate cause.

I now wish to call your attention to a different class of considerations, which are of great importance in explaining the tendency of the nervous system to fall into a state of disorder, without the presence of actual disease; they have reference to the functions of that system.

The nervous system constitutes the sole medium of communication between our body and the outer world; but for the nervous system we should be entirely ignorant of the existence of external objects, nay, without it we should even be ignorant of our own personal existence; it is only by the operations of the mind that impressions upon our various senses become anything more than mere impressions, the mind receives the impressions produced upon the special organs of sense, passes its judgment upon the sensations excited, and directs the bodily operations which such knowledge suggests. In what manner the mind is connected with the material organs of the nervous system we are in profound ignorance; nor have any of the speculations of rival schools, which have been employed upon this subject, almost since men began to think, done anything to solve the mystery. It is sufficient for us to know, and as Medical men it is most important that we should have a full conviction of the truth, that in every action of our lives, the smallest and the greatest, the nervous system bears a prominent part; in every idea which is communicated, in every thought which is generated, in every action of which we are conscious, in every movement we perform—nay, in every momentary change which is effected among the component particles of our body, this wonderful system of organs is the motive agent. How wide a field for the operation of deranging influences do such considerations as these open before us! the wonder really is, not that the nervous system is occasionally disordered, but that among the many strange conditions in which it may be thrown, it continues long in healthy operation.

I shall consider this part of my subject, namely, the influence of the functions of the nervous system in inducing disorder in its operations, under two heads: first, the effect of sudden and violent emotions, secondly the effect of emotions or of mental effort long sustained.

First: the influence which sudden and violent impressions, especially those which operate through the mind, exert upon the nervous system, is matter of daily experience; the very term, "shock," by which we describe their operation, bears testimony to our experience of the severe effects they are able to produce—sudden news of some disaster, or even of some joyful event; fright, rage, the witnessing of some horrible occurrence, etc., are included in this class of impressions.

Thus, at Manchester, a short time ago, a child was in imminent danger of being run over; its mother drew it almost from under the horse's feet, she fainted immediately after, then became violently hysterical, and died the same night. Dr. Todd (Lumleian Lect. 1850) gives an account of the death of the "Lion Queen" in Wombwell's Menagerie, which occurred from an attack by the tiger; a gentleman, who witnessed the occurrence, stated, that she fell senseless, and died in a quarter of an hour, although no important structure had been wounded, and she had lost but very little blood. I might multiply similar proofs of the powerful effect produced by violent emotion, but there is one fact connected with the subject which will afford a further illustration derived from our every-day experience, namely, the great expenditure of nervous force to which such emotions will give rise; it is proverbial that under the influence of violent mental excitement of every kind, an amount of muscular power is developed which is quite surprising, and which imparts to a weakly girl, for the moment, the strength of the most powerful man, but is nevertheless followed by proportionate exhaustion; moreover, this excessive nervous excitement is not

(b) Psychological Inquiries, p. 69.

confined to any single organ or set of organs, but influences the entire system, even all the secreting organs. Now, to apply these familiar facts to cases of the class we have under our present consideration, I could quote many instances which have presented themselves to my own observation, of the result of intense emotion; or which are recorded by different writers upon this subject: thus, Dr. Johnson (Lect. in Therapeutics, Coll. of Phys., 1853,) details the history of a little boy, who became epileptic, and subsequently paralytic, from alarm at the threat of a policeman; and of a man who fell into an epileptic fit on seeing a fellow-workman fall from a scaffold. I have notes of the case of a young woman who became permanently epileptic from a fright occasioned by a hedgehog being thrown at her; she had never seen a hedgehog before; and of a woman who fell down in a state of insensibility on seeing her father threaten the life of her mother; she remained ever after subject to violent hysteric fits. It is a familiar fact, that epilepsy has been induced for life by schoolboy tricks tending to produce alarm. Chorea is a disease of an eminently emotional character; it often originates in fright; I have twice met with cases of extreme violence produced in this manner, and throughout its whole course the disease is especially influenced by emotion; and it is most prone to occur in excitable, emotional subjects.

It is not the least interesting circumstance in the history of such cases, that the mental impression does not exhaust itself with its first effects, even though such effects be severe; too often the patient remains subject, even for life, to a recurrence of the disorder which the first emotion has induced. Under such circumstances, we are sometimes able to obtain evidence that the mind has never been able to free itself from the painful impression made upon it (c), and sometimes, it would appear that the violent effort made by the brain, in the first instance, has been attended by some injury, either directly to its substance, or indirectly through its nutrition. Thus, a lady, in the course of a protracted labour, in which she was attended by my father, was seized with violent convulsions; when they subsided, she fell into a state of mental derangement, from which she has never recovered. A little girl, under my own care, was suddenly seized with an epileptic fit, without any apparent cause. She was slow in recovering, and was then found to have lost her knowledge of reading and writing, and was obliged to go through this part of her education a second time, beginning with straight strokes and pothooks.

2ndly. You will have no difficulty in comprehending that, if sudden and violent emotions are capable of producing such serious consequences, excessive, or even ordinary, mental effort, sustained for a long time, may, in the end, be attended with like effects; and this constitutes the second branch of my subject. If any of you have experienced the fatigue of body which follows laborious exertion of mind, you will the more readily feel that mental labour, if long continued, must make an injurious demand upon the nervous power. Under that head, I include, not merely intense study more particularly, but long-sustained anxiety, as that which accompanies extensive business engagements, or is produced by reverses or family concerns, prolonged grief or distress, incessant harass of mind,—all fall under this category. It is unquestionably the emotions which exert the deepest and most lasting influence over the nervous centres; mere intellectual effort, how excessive soever, and long-sustained, is rarely attended by those serious consequences which the passions entail when greatly excited, or in a long-continued state of activity.

The Emperor Napoleon strikingly illustrated the truth of what I have said. Alison, in his History of Europe, after describing the great mental power which Napoleon possessed, and the unparalleled demand he made upon it, often for a long time together, and with a very small allowance of sleep, adds, "that he enjoyed through life the most robust health, the result, in a great degree, of extraordinary placidity of mind; neither his extraordinary elevation, nor his still more extraordinary fall, had any effect in permanently disturbing his equanimity of temper; and the ceaseless activity of his mind, and gigantic projects in which he was engaged, never affected the uniform health of his body." (7th Ed. Vol. XVII. p. 43.

I shall complete this subject in my next Lecture.

(c) See some interesting examples in illustration, in Dr. Johnson's Lectures, quoted above.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY.

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE V.

Pathology of the Reparative Process in Tendons, Muscles, Ligaments, and Fasciæ, after Subcutaneous Division; and the Possibility of Producing Elongation and Shortening of the same Tissues, in Relation to the Cure of Deformities.

In the preceding Lectures, I have given you an outline of the general pathology of congenital and non-congenital deformities of the foot, so far as relates to the probable causes, methods of production, consecutive changes, and principles of treatment applicable to the various classes of cases.

The next inquiry in which we are most interested has reference to the nature of the process by which these deformities are cured; and we therefore advance in natural order to the pathology of the reparative process in the different tissues, generally divided by subcutaneous section, in the cure of deformities, viz.: 1st. The tendons; 2nd. Muscles; 3rd. Ligaments and fasciæ.

It will also be useful to consider the possibility of elongating the same tissues by gradual extension, either by mechanical means, or by exercises, etc.; methods frequently adopted in the cure of deformities, and considered by some authorities to be capable of superseding the necessity for operations. I shall also advert to the possibility of shortening the above-named tissues when of excessive length, either by operation, or long retention in a fixed position.

Union of tendons after division.—Opportunities for investigating the nature of the reparative process in human tendons, after division, are necessarily extremely rare, and can only be obtained when death happens to occur from some accidental cause within a short time of the operation. Very few of such cases have been recorded; and even in these no good description has been recorded of the nature of the reparative process, nor yet of the recent appearances and microscopical characters of the uniting medium A few such opportunities have occurred in my own experience, and to these I shall hereafter allude, but for a connected account of the process in its various stages, we are still obliged to refer to such experiments as have been made on animals—for example, those made by Hunter on the ass and deer, the preparations resulting from which are now in the Museum of the Royal College of Surgeons; those made by Mayo on dogs, and described in his "Outlines of Physiology;" (a) and more recently the valuable series made on rabbits by Mr. Paget (b). Similar experiments have also been performed by several distinguished Continental Pathologists, and to these reference will be made hereafter, especially to those by Von Ammon (c), Pirogoff (d), Gerstaecker (e), Thierfelder (f), and Boner (g).

(a) London, 1827; and the three subsequent editions in which the same account is repeated.

(b) "Medical Times and Gazette," for 1849; and also "Lectures on Surgical Pathology." Vol. I. London: 1853.

(c) De Tenotomiæ Physiologia, Experimentis Illustrata. Dresdæ: 18[illegible]7.

(d) Ueber die Durchsehneidung der Achillessehne als operativorthopädisches. Heilmittel von Nikolaus Pirogoff. Mit sieben Tafeln. Dorpat: 1840. For an account of these experiments see also Gerstaecker's Diss., Op. cit.

(e) Dissertatio de Regeneratione Tendinum post Tenotomiam. Adolphus Gerstaecker. Berolini: 1851.

(f) Diss. Histol. de Regeneratione Tendinum. F. F. Thierfelder. Micenæ: 1852.

(g) Die Regeneration der Sehnen. I. H. Bohner. Archiv. für Pathologische Anatomie und Physiologie und für Klinisho Medicin. R. Virchow. Berlin: 1854. P. 162.

It is important to bear in mind that the results of experiments on animals, to illustrate the nature of the reparative process in the various tissues in the human subject, must be received with caution. The repair of fractures is just as difficult to investigate in the human subject as the repair of tendons; and, therefore, the results of experiments made on dogs, rabbits, etc., by Dupuytren, Sir Astley Cooper, Miescher, etc., have been received as illustrating the same process in human beings; but the more recent and valuable observations of Mr. Paget on the fractures of human bones, have shown that very important differences exist in the process as usually occurring in animals and in man. That provisional callus which constantly exists in animals, is not an essential part of the process in man, and only takes place under certain disturbing influences. It is even probable that the more perfect specimens in animals were thrown aside, and the less perfect preserved, because erroneously supposed to illustrate the reparative process. Mr. Paget has also shown that, in man, union does not generally proceed through ossification of a previously-formed cartilage, such as is constantly produced in animals; but that, in adults at least, ossification takes place through fibrous tissue. These are very important differences in the union of fractures in animals and in man.

In the union of tendons, it is probable that the process is essentially similar in man and in animals; and that the differences are rather of degree than of structural development, the process being quicker and more active in animals than in man; but still it is desirable to investigate the process in the human subject as far as possible.

The great practical results—viz., that tendons do unite after division—as frequently seen in accidental wounds long before Surgeons ventured to operate upon them—and also after spontaneous rupture, as frequently witnessed in the tendo-Achillis; and that, like bones, they become as strong as the original structure, were self-evident and self-proved facts; but the nature of the process by which union takes place would still seem to be obscure, since, as I shall presently show you, the English and Continental Pathologists, who have experimentally investigated this subject, are directly at variance with respect to the nature of the reparative material, its sources, and its mode of development. Still less do we know in what way it is ultimately disposed of; but to this I shall especially advert in speaking of the process in human beings.

After the very careful investigation of the reparative process in a series of experiments on the tendons of rabbits, divided by subcutaneous and open wounds, which were made by Mr. Paget—and which through his kindness I have had the opportunity of examining—and after the account of the process given by him in his Lectures at the College of Surgeons in 1849, it might seem unnecessary to have repeated such experiments; but different accounts have since been given by Gerstaecker, Thierfelder, Boner, and others, who were, doubtless, familiar with Mr. Paget's observations; and therefore I undertook a re-examination of the process also in a series of experiments on rabbits—animals convenient for the purpose.

In making these experiments, I was not only desirous myself of examining minutely and microscopically the reparative process in its early stage; but I was also anxious that you should have the opportunity of seeing the different stages of this most interesting process, by which we are now enabled to cure a large class of the most frightful deformities to which the human frame is subject, and which but a few years since were considered to be utterly beyond the reach of human aid. To procure the series of specimens which I now exhibit to you, the animals (14 in number) were killed at different periods between the second and the sixty-second day after the division of the tendons, so that we can see the reparative process up to that period.

The results of the present experiments appear to confirm Mr. Paget's account in most respects, especially with regard to *the influence of blood, and the inflammatory process* in interfering with, rather than in assisting, the reparative effort; and, also, with regard to the development of the new connective tissue from a proper reparative material, described by Mr. Paget as "nucleated blastema," and differing from inflammatory lymph, in which fibro-cellular tissue is developed from nucleated cells.

From these experiments it appears that blood is neither necessary nor advantageous to the reparative process; and that where it does exist, it interferes with rather than assists this process; a conclusion at variance with the opinions of Von Ammon, Pirogoff, Gerstaecker, Thierfelder, and Boner, but agreeing with that of Mr. Paget.

In those which I considered to be the best specimens, no blood whatever escaped from the wound, and no swelling of the part followed the operation. On the following day, the abrupt extremities of the divided tendon could easily be felt in the leg, generally about an inch apart, and the connecting sheath could be put on the stretch by extreme flexion of the foot (though not to become as prominent as the tendon).

From day to day this thin connecting membranous sheath could be felt to become thicker and more cord-like, and on the sixth or eight day it acquired the bulk and cylindrical form of the old tendon. At this period, or a little earlier, a defined enlargement of the lower extremity of the old tendon was felt, which increased till about the sixteenth or eighteenth day, and then gradually diminished. It was evident that this was not the result of inflammation following the operation, but belonged to the reparative process; a slight enlargement could generally be detected at the upper extremity also.

In examining these specimens on the first, second, third, and fourth days, only a very small and unimportant quantity of extravasated blood was found,—a thin streak of blood perhaps, within the sheath, and a film of coloured fibrin adherent to one or both of the cut extremities of the tendon, generally the upper. If extravasated blood be supposed to be the material from which the new tendon or connective tissue is formed, then the reparative effort must have failed in those instances which the series of experiments led me to consider as presenting the most favourable conditions for rapid and perfect repair. To obtain such specimens, the operation must be performed with great care: the rabbit held very firmly, the tendon divided low down (¼ an-inch from its insertion), and a small and sharp knife used, which must be introduced and kept as close as possible to the tendon. I divided the tendon from before backwards.

In other instances, and those which I considered to be less perfect, a little bleeding followed the wound; and in one case a considerable subcutaneous effusion of blood immediately took place, but this did not occur in any other operation. In several instances, however, a little effusion was found to have occurred by the next day, and upon examination, a clot of blood was seen in these cases, generally within the sheath, not filling it, but occupying its central or lower portions. On the fourth or sixth day this blood-clot usually presented an oval, or circular, and well-defined outline; and, except in one instance, on the tenth day was surrounded by inflammatory exudation, and was in process of softening and extrusion. At a little distance from these clots, both above and below, but more especially above,—in consequence of the greater distance to which the upper extremity of the tendon was retracted,—the reparative process was seen proceeding as in the more perfect specimens, viz., by the formation of a cylindrical bond of *new* material, contrasting very strongly with the portion in which the disturbing influences existed.

It was evident that, wherever clots of blood existed, the reparative process was interfered with to a corresponding extent; this I think you will see clearly demonstrated in the preparations now before you.

In one specimen, on the tenth day, an elongated clot of blood was found in the centre of the new connecting bond, but simply enclosed, and without exhibiting any disposition to organization. The attenuated extremity of this clot appeared to have prevented the complete closure of the cutaneous puncture into which it extended. This specimen I now exhibit to you.

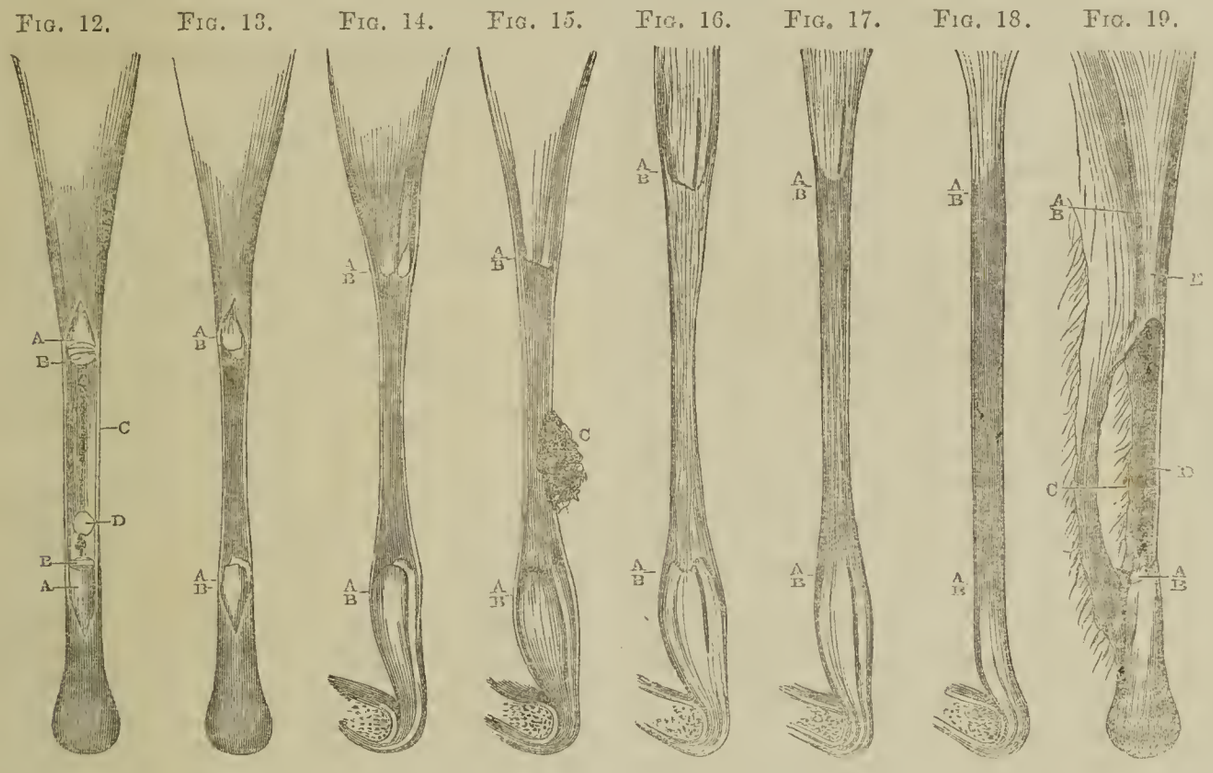
Inflammation appears, from these experiments, to be neither necessary nor advantageous to the reparative process; an opinion also agreeing with that of Mr. Paget. In many instances there were no indications of inflammatory exudation having taken place,—or not more than enough to close the cutaneous puncture, and cause *very* slight adhesion of the sheath to the edges of the wound,—the parts exhibiting only slight injection. There was no general infiltration of the tissues, rendering them succulent and yellow, like parts infiltrated in anasarca, as described. Vascularity of the sheath, however, always existed during the activity of the reparative process, but not as an inflammatory condition. Where an excess of inflammation existed,—generally associated with some extravasation of blood,—the different conditions of in-

flammatory exudation, softening of fibrin, and the normal development of the new connective tissue, were all to be seen in juxtaposition, and might easily lead to error, unless the appearances were interpreted by comparison with a number of more perfect specimens.

Thus, from the appearances presented to the naked eye alone, these experiments have led me to the conclusion, that the rapidity and perfection of the reparative process is directly in proportion to the absence of both extravasated blood and inflammation.

In a few instances, an excess of inflammatory exudation took place, without extravasation of blood; in these, the space between the divided extremities of the tendon was swollen by the third day, the swelling also extending below this point. On examination, the definition of the sheath, described in the other specimens, was lost in the general infiltration and effusion of lymph.

The influence of the sheath of the tendon appears from these experiments to be of primary importance, not only as forming the matrix in which the reparative material is infiltrated in the first stage of the reparative process, but in determining from the beginning its direction and definite form.



AB. AB. Divided extremities of the tendo-Achillis and accompanying tendon in the Rabbit, retracted after transverse division by subcutaneous section and open wound. Of the latter, Fig. 19 is the only example.

Fig. 12.—C. Connecting tubular sheath. D. Incision in ditto.

Fig. 15.—C. Clot of blood imbedded in the new connective tissue, and interfering with the reparative process.

Fig. 19.—C. Cutaneous wound, which, though made as a transverse incision, is now seen to be longitudinal. D. Divided edge of sheath not retracted with the tendon, but adherent to the edge of the cutaneous wound, and longitudinal in direction, though it had also been divided transversely.

In the subcutaneous operations the sheath is not completely divided, and often appears to be but very little injured. On the second day (Fig. 12), where neither extravasated blood nor inflammation follows the operation, the sheath forms an empty tubular connexion between the divided ends of the tendon, and is slightly thickened by infiltration of blastematous material among its fibrous elements. On the fourth day (Fig. 13) the tubular character of the sheath is nearly obliterated by the increased thickening and succulency of its walls. The vessels of the sheath are injected; but there is not necessarily any evidence of inflammation. The sheath is infiltrated a little beyond the cut extremities of the tendon, which it therefore encloses and externally thickens. On the sixth day (Fig. 14) a solid bond of union connects the divided extremities of the tendon, with which, however, it has but a very slender connexion. The extremities of the old tendon can be easily separated, or, as it were, enucleated. In this material the sheath is lost, its fibrous elements mingling with the new connective tissue abundantly at its circumference, and gradually diminishing towards the centre; but, so far as I could discern, without any definite arrangement such as described by Thierfelder (h), who says that processes of the sheath pass in between the three portions in which (imitating the old tendon) the new connective tissue or bond is formed. Except in cases in which excessive inflammation followed the operation, it did not appear to me, as described by Mr. Paget, that "a single well-defined and cord-like bond of union thus gradually formed, where at first there had been a uniform and seemingly purposeless infiltration of the whole space left by the retraction of the tendon." In those described as the more perfect specimens, the sheath appeared from the first to form the matrix, and determine the direction and form of the reparative material. To this, I think, we must attribute the great strength which the new connecting bond soon acquires. Mr. Paget found that a tendon which had been divided six days previously, sustained gradually increased weights up to ten pounds, and one of ten days fifty-six pounds.

At a late period of the reparative process, when the new connecting bond has assumed a more perfect character, the formation of a new sheath on its surface may be traced, gradually separating, as it were, and becoming more distinct from the new tendon. In these experiments this process was seen to be advancing on the fifty-fourth day (Fig. 18).

The experiments in which the tendons *were divided by open wounds* were made chiefly to ascertain how far the influence of the sheath was destroyed by this mode of operating; and it appears that complete transverse division by open wound does not destroy the influence of the sheath, as has been supposed, because it does not retract as the divided ends of the tendon do; for it must be observed that the lower extremity of the tendon is drawn downwards, away from the cutaneous puncture, in rabbits, by the use of the limb. Its retraction appears to be prevented mainly by its connexion with the processes of fasciæ, which extend between, and form the sheaths of, the deeper tendons; and in part by its slender cutaneous connexions. There is no subcutaneous fat and cellular tissue in this situation, in the rabbit, as in the human subject. Moreover, the continuity of the divided sheath appeared, in these experiments, to be quickly re-established, by adhesion taking place between its cut edges and the margins of the cutaneous wound, which did not retain its transverse form, but in three or four days assumed

(h) Op. cit.

a longitudinal direction, and on the sixth day appeared as if it had been a longitudinal incision (Fig. 19).

The separation of the divided extremities of the tendons in these experiments, and consequently the length of the new reparative material or connecting bond, varied from 1¼ inch to 2½ inches. This appeared to depend less upon the age and size of the rabbits (the ages varied from four months to a year and a-half) than upon the interval which had elapsed since the operation. Immediately after the operation, the separation was generally 1 inch. From the fourth to the twelfth day, it was generally 1¼ inch. From the sixteenth to the twenty-sixth day, it varied from 1½ to 1¾ inch. On the fifty-fourth day it was 2 inches. And on the sixty-second day, it was 2½ inches. The two last specimens were from the same rabbit, aged four months at the time of operation, and the increased length in one leg appeared to depend upon an attenuated condition of the new connecting tendon in its central portion, probably from excessive use. This condition also existed in two or three other specimens in which the length of the new tendon was beyond that of the other specimens of about the same period.

The divided extremities of the old tendon cannot be recognized externally, because the sheath is thickened and infiltrated for an eighth of an inch or more beyond the cut edges which it serves to connect above and below. At a late period, however, the line of separation between the old and new tendon can be more distinctly recognized, by a slight difference in colour and vascularity.

In a longitudinal section, the extremities of the old tendon remain very distinctly obvious up to a late period; but this distinction, as an abrupt transverse line, is lost much earlier at the upper than at the lower extremity. On the twenty-sixth day in these experiments, the blending of the old and new tendon at the upper extremity, was enough to render the exact line of junction somewhat indistinct. This increased to the fifty-fourth day, when the line of junction, as a distinct transverse line, was lost by a process of dovetailing of the new material with the separated fibres of the old tendon. The divided extremity of the lower portion was still square and distinct; though a fine dovetailing of the new and old tissues was apparent.

I did not detect any succulency or enlargement of the ends of the old tendon in the early stage of the reparative process, as described by Mr. Paget. An enlargement in the situation of the divided extremities of the old tendon was apparent externally; but this depended upon the thickening of the surrounding portion of the sheath, and might be described as analogous to the provisional callus in certain fractures (Figs. 13 and 14) but this appearance is not delineated so distinctly as it was seen in several specimens. This spurious enlargement gradually disappeared, and was succeeded by a true bulbous enlargement of the extremities of the old tendon, depending upon the separation of its fasciculi, and the insertion of the new reparative material between them, by a process of dovetailing and intimate adhesion. This also disappeared in the late stage.

Up to the sixth day (Fig. 14) both the extremities of the old tendon appeared, on section, to remain passively included in the connective tissue, without undergoing any change, beyond a little rounding of their cut surfaces, and slight diminution in firmness, not amounting to softening. They had but a slender connexion with the surrounding tissue. On the eighth day, the adhesion between the extremities of the old tendon and the new connective tissue was too close to admit of easy separation. On the tenth day, the process of enlargement, by the separation of the fasciculi of the old tendon, and insertion of the new reparative material between them, was seen to commence in the lower extremity. On the twelfth day (Fig. 15) this was very distinct in the lower, and the commencement of the same process was seen in the upper extremity. On the sixteenth day (Fig. 16) this bulbous enlargement was more advanced in both extremities, but existed to a much less extent in the upper. On the eighteenth day, this process was at its maximum, but remained much less at the upper than the lower end. The free extremities of the separated fasciculi slightly converged through this process, the new material existing in greater abundance a little beyond the cut extremities of the fasciculi—hence the bulbous form. On the twenty-second day, a perceptible diminution of this process was observed in both extremities; and it had still further advanced on the twenty-sixth day, (Fig. 17,) when the line of separation between the old and new tendon at the upper extremity had become less distinct, from a more intimate blending of the tissues. On the fifty-fourth day (Fig. 18) all appearance of this bulbous enlargement had disappeared from both extremities, which had resumed their cylindrical form. The exact line of separation between the old and new tendon was very indistinct above, but still traceable below. The process of union of the new with the old tissues was therefore more rapid, and more easily effected at the upper than at the lower extremity of the divided tendon.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF FEVER BY LARGE AND FREQUENTLY-REPEATED DOSES OF QUININE.

By THOMAS B. PEACOCK, M.D.,
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[Read at the Hunterian Medical Society, November 28, 1855.]

(Continued from page 6.)

In the former portion of this paper, I pointed out the very varied statements, which have been given by different Practitioners, as to the success attending Dr. Dundas's mode of employing quinine in the treatment of fever, and alluded to the cautions which should be exercised in an experimental investigation of the actions and uses of the drug so administered. I now propose to report the results which have been obtained from the quinine treatment, as employed at the St. Thomas's Hospital, comparing the average mortality and duration of the cases in which it was administered, with the similar facts as to those, in which the more ordinary treatment was had recourse to; I shall then detail the particulars of some cases in which I have myself employed the remedy.

On referring to the hospital records, I find that during the present year, from January to October inclusive, there were treated in St. Thomas's, 139 cases of fever of all kinds, excluding the cases entered as febricula and ephemera. Of the 139 cases, 20 were subjected to the quinine treatment. In one case, 4 grains of the drug were given every two hours; in a second, 5 grains were exhibited three times daily; in a third, 5 grains were administered every three hours; in four others, 5 grains every four hours; in two, 6 grains every three and every six hours; in two, 8 grains every four hours; in two, 10 grains every two hours; in three, 10 grains every six hours; and in one, 15 grains every six hours. In three cases, (one male and two females,) the remedy was only given in doses of 2 grains three times daily. In six of the cases, the exhibition of the quinine was commenced on the day of the patient's admission into the Hospital; in eight, on the following day; in one, on the third day; and in one, on the fifth day from admission. In one case, in which the patient took fever in the Hospital, the precise period of the disease at which the quinine treatment was commenced, is not stated, but it may be inferred not to have been later than the third or fourth day. In all the cases, stimulants and support were had recourse to, as required. Of the twenty patients, fifteen were males, and five females; the respective proportions of the sexes being 75 and 25 per cent.

The mean age was in males 24·1; the extremes, 17 and 35
,, ,, females, 20; ,, 14 and 29
,, ,, both sexes, 23·4.

The mean period of admission was in males, 9 days.
,, ,, ,, females, 10 ,,
,, ,, ,, both sexes, 9·1

Deducting the three cases in which small doses only were given, the mortality was:

In males, 2; in females, 1; or,
In males . . . . . 14·2 per cent.
females . . . . 33·3 ,,
both sexes . . . 17·6 ,,

The mean period of residence of the cases cured, excluding those in which small doses only were given, and one case detained in Hospital eighty-four days, from accidental circumstances, was :

In males	28·7	days.
females	30·5	,,
both sexes . . .	29	,,

During the same period of nine months there were, as before stated, 119 other cases of fever treated in the Hospital. In some of these cases, little else was given than soda water, and suitable support and stimulus. In others, the treatment consisted in the exhibition of chlorate of potash, dissolved in water or decoction or infusion of bark, with or without hydrochloric acid, in doses of 8 or 10 grains, every two or three hours. In yet other cases, the sesquicarbonate of ammonia, in doses of 5 to 8 grains, was given in infusion of serpentary or decoction of bark at intervals of 2 to 4 hours ; this treatment being commenced either at an early period of the disease, or towards its termination. In both these sets of cases, diffusible stimulus and support were also given, according to the amount of prostration.

Of the 119 cases, 73 were males, and 46 were females, being respectively 61·3 and 38·6 per cent.

The mean age of the patients was :

In males, 24·5 ;	extremes,	4 and 72
females, 24 ;	,,	5 and 58
both sexes, 24·4 ;	,,	

The mean period of admission was :

In males	10·4	days
females	9·5	,,
both sexes . . .	10·2	,,

The mortality was in males 10, in females 5 ; or,

In males . . .	13·6	per cent.
females . . .	10·8	,,
both sexes . .	12·6	,,

The mean period of residence of the cases cured, (deducting those detained in the Hospital from accidental causes), was :

In males	27·2	days
females	29·8	,,
both sexes . . .	28·1	,,

It will be seen, on comparing these two series of observations, that they bear a very close general resemblance, as regards the circumstances which most materially affect the results of the treatment pursued ; as the age and sex of the patients, and the period of the disease at which they were admitted into the Hospital ; indeed, in the last two particulars, the advantage was rather in favour of the cases treated by quinine. The two series may, therefore, be admitted as affording some test of the respective merits of the systems of treatment pursued ; and it will be seen, that in the quinine cases the rate of mortality is considerably higher, and the durations of residence longer, than in the others.

It may, however, be objected that a calculation founded upon the respective duration of residence of the cases in Hospital, does not afford a satisfactory standard of comparison, as being liable to be affected by accidental causes ; and there can be no doubt of the truth of this remark. The period during which a patient is detained in bed would, exceptional cases being omitted, afford more exact results ; but the comparison of the periods at which the patients are regarded as free from fever, as adopted by Dr. Gee and Mr. Eddowes, or the period of convalescence, would be a still less satisfactory standard, because liable to greater variation from the views of different observers. In the calculations above given, I have endeavoured to guard against incorrect results, by excluding all cases detained for a longer period than usual, from casual circumstances.

It may also be contended, that the number of cases in which the quinine treatment was had recourse to, was so small, that the inferences deduced from them cannot be depended upon. Admitting the force of this objection, I have collected all the cases in which the quinine treatment was employed in the Hospital during the year 1854. These I find amount to twenty in number, of which twelve were males and eight females ; but two, one male and one female, took the remedy only in small doses. Deducting these, there remain eighteen cases in which the quinine was exhibited, in doses varying from 2 and 4 grains every four hours and three times daily, in boys of 8, 10, and 15 years of age, to 5, 8, and 10 grains every two, four, six, and eight hours, in adults. The remedy was commenced on the day of the patients' admission into the Hospital in seven cases ; on the following day, in five cases ; on the third day, in three ; the fourth, in one ; and on the seventh, eighth, and ninth days from admission, also in one case each. The general circumstances of the cases were also more favourable for treatment than either of the other two sets, the mean age of the patients being only 19·3, and the extremes 10 and 45 ; and the mean period of admission the sixth day of illness. The results were also more favourable both as regards the mortality, and the duration of the cases cured ; the deaths being only two males ; and the period of residence in the cases which recovered, only twenty-six days ; deducting the three cases in which the quinine was not given till the seventh, eighth, and ninth days from the admission of the patients into the Hospital, and in which the period of residence was twenty-seven, sixty-three, and sixty-nine days.

Adding these two series of cases together, and deducting those in which the remedy was only given in small doses, we get a total of thirty-five cases treated by quinine ; of these twenty-five were males, of whom four died ; giving an average mortality of 16·0 per cent. ; and ten were females, of whom one died, or ten per cent. ; or in the thirty-five patients of both sexes, the mortality was five, or 14·2 per cent.

The mean period of residence of the cases cured, was, in twenty males (excluding the one detained eighty-four days), 27·9 days ; and in six females (excluding the three in which the patients did not commence the remedy till the seventh, eighth, and ninth days from their admission into the Hospital), 25·3 days ; or, taking the two sexes together, the mean period of residence of the patients was 27·3 days.

It will thus be seen, on comparing these results as to the thirty-five cases treated by quinine with those obtained in the other 119 cases, that while the mortality in the quinine cases was considerably greater than in the others (1·6 per cent.), the mean period of residence of the cases cured under that treatment was very nearly the same as in the other cases (·8 less).

This statement, embracing, as it does, so large a number of cases, including all those treated in the Hospital by quinine during a period of nineteen months, and that, too, in the practice of different Medical men, must, I think, be regarded as affording a fair indication of the results of the quinine treatment, and a legitimate comparison with that of the other methods. There do not appear any circumstances which should affect disadvantageously the results in the quinine cases ; indeed, the general characters of the cases so treated are rather more favourable for treatment than those in which the more ordinary plans were pursued. If, therefore, quinine really possessed the power of cutting short an attack of fever, without reference to its particular type or form—and such is distinctly the assertion of Dr. Dundas—the average duration of the cases cured under that treatment, and their mean mortality, should be less than those under the ordinary plans ; and if such does not prove to be the case, the fair inference is, that the remedy does not possess the asserted power.

It is, however, quite possible that, though the quinine treatment may fail to exhibit satisfactory results, when applied to all the cases which occur, taken indiscriminately, without reference to their peculiar character ; when applied to a more select set of cases, it may prove to be capable of arresting some of them or, at least, of materially mitigating their severity. In the following cases, I have made use of the remedy with a view of ascertaining, by direct observation, how far it possesses the asserted power of arresting fever, or of proving, when exhibited in large and frequently-repeated doses, a useful auxiliary to the employment of other means.

Case 1.—*Typhus.*—10 *grains of quinine given every six hours ; recovery.*—A policeman, aged 28, admitted into Dr. Bennett's ward, when under my care, August 28, 1855. He stated the following day, that he had been residing in a lodging-house, and was not aware that any one had been ill in the house before his attack ; he was quite well till nine days before his seizure. He is now much prostrated ; pulse 100 ; the tongue red at the sides, with a thick brown fur on the dorsum, and chapped ; the skin is cool and somewhat moist. There is a copious eruption on the skin ; it is not elevated, and fades on pressure. He is capable of answering questions, but is very torpid ; he has not been delirious. The eyes are heavy, and somewhat suffused ; he has not had epistaxis. The bowels have been acted upon once since his admission. He has a slight cough, and some

rhonchus is heard in the chest. To take 10 grains of sulphate of quinine every six hours, and a glass of wine daily.

August 30.—He is more torpid and drowsy. The tongue dry and brown. The eruption is now fully out, and has the characteristic typhous form. The bowels have acted once since yesterday. To have a blister at the back of the neck, and take three glasses of wine daily; to continue the quinine.

31.—Still very drowsy. Pulse, 90. Skin moist and warm. He slept during the night, and has had no delirium. The bowels have not been acted upon. To have a calomel-and-rhubarb powder, and otherwise continue as before.

September 1.—The eruption is nearly gone. The pulse is 88, and quiet. Bowels twice relieved since the powder. Takes food better, and is less torpid and sleepy.

3.—Expresses himself as feeling better, but still very torpid. Tongue dry and brown. Pulse 64. He is deaf, and has been so in some degree since his admission. Pupils natural. Skin cool, but dry and harsh; the eruption has entirely disappeared. He does not take much food. Bowels were acted upon once yesterday, but have not been relieved to-day. To have the liq. vesicat. applied to the blistered surface at the back of the neck, and a glass of brandy, in addition to the wine. To continue the quinine.

6.—Is much more intelligent-looking, and takes his food better. The tongue is dryish, and still thickly coated on the dorsum, and red at the tip. Pulse 64, very feeble.

From this time he continued steadily to improve; the quinine was continued, but was less frequently exhibited during the day, and he required mild aperients. He was discharged cured on September 28, or on the thirty-first day from admission, and the fortieth from seizure.

Case 2—Typhus.—5 grains of quinine given every two hours.—Recovery.—A boot and shoemaker, aged 25, admitted into Jacob's Ward, under my care, on the 8th of December, 1855. The following notes were taken immediately after his admission:—He states that he was taken on the 2nd with shivering, pain in the head, chest, and back, after which he became feverish, and lost all the pains, except the headache, the bowels being at the same time confined. A family living in the same house had all been ill with fever; he was himself quite well, and employed till the commencement of his illness. He now complains of frontal headache, but has no pain anywhere else. Tongue dryish, and thickly coated with a whity-brown fur. Pulse soft and compressible, 88 in the minute. The skin is patchy, as if an eruption were coming out. The bowels were freely acted on yesterday, after taking castor-oil.

℞ Mist. cinchonæ et potassæ chlorat. ℥i., 4tis horis, milk diet.

December 9.—Expression of countenance very much depressed. Skin moderately warm; face pale, sunken and thin; tongue dry, covered with a white fur, and with the papillæ and tip, morbidly red. Pulse 92, small and soft. The skin is covered with a patchy eruption, which fades on pressure, and there are other spots of a purplish hue and irregular shape, not elevated, and which do not fade on pressure. Bowels not acted upon since his admission. Some cough, and pain in his head when he coughs. He is quite rational. Restless at night, but not delirious. Some soreness in the throat, but no swelling, or material redness. Breath sour; respiration harsh; no rhonchus.

℞ Quinæ disulphat. gr. v., acid. sulph. dil. ♏ v., aq. destill. ℥j., 2dâ quâque horâ. Wine, 2 glasses daily, milk diet.

10.—10½ a.m. He commenced the quinine at twelve o'clock yesterday, and has taken nine doses. Had a quiet night, being disposed to doze. Bowels acted on once yesterday. He is very torpid, and expresses himself as not better. Pulse 68, very feeble. Tongue covered with a thick whity-brown fur, and dryish. Complains that his head and neck are stiff, and he cannot move them. Speaks rationally, but keeps his eyelids closed, and will not open them. Some tremor of the hands; face pale. A decided typhous eruption on the skin, which consists in part of a rash, fading on pressure, and partly of purple spots which do not fade. It is most copious on the abdomen, but exists also on the thorax, back, and less copiously on the arms and shoulders; not on the legs or forearms, but slightly on the hands. Pupils natural; abdomen tumid; makes water freely. Complains of a sound in his ears as of the rumbling of a vehicle over a hard pavement. No sickness or vomiting. Prostration much increased. Omit the mixture. Half-past ten o'clock a.m., hair to be cut short. Brandy, 3 glasses, with the two glasses of wine, daily. In the evening he was directed to take the following mixture:—℞ Ammon. s. carb. gr. v., inf. serpent. ℥i., 2dâ quâque horâ.

11.—9½ a.m. Looks better; speaks more energetically, and opens his eyes. Tongue dry and brown at the tip, white and dryish on the dorsum. Pulse 80, feeble. Yesterday afternoon, at half-past four, the pulse had risen to 76, and he was somewhat less prostrated, but he still complained of singing in the ears. He was very restless during the night. Slept about two hours, and during the remainder of the time was constantly muttering. To-day he speaks rationally when addressed. Bowels not acted upon since four o'clock p.m. on the 9th. Has made water freely. Still complains of headache, and singing in the ears. He hears distinctly. The eruption is fully out. Some spots fade on pressure, others do not. Takes nothing but the wine and brandy, and tea. He has not been sick, nor had epistaxis.

℞ Ol. ricini ℥ijss. p. m.

12.—He expresses himself as feeling somewhat better. Skin warm and dryish; some tremor of the hands. Pulse 92, with more power. Occasional subsultus tendinum. Tongue morbidly red at the tip, brown and dryish above. Conjunctivæ somewhat injected; pupils rather small. The bowels were acted upon this morning after a small dose of castor-oil. Passed a quiet night, and slept a little. Takes his food better. The typhous eruption is still copiously out on the skin, the spots consisting partly of a pale rash, which fades on pressure, partly of larger-sized, purplish spots, which do not fade; there is some eruption, both that which fades, and the petechiæ, on the feet, forearms, and hands. The lips are parched, and there are sordes on the teeth. He still complains of pain in the back of the neck, but the tinnitus and headache are gone.

13.—Has passed a better night; was not delirious; slept well. He expresses himself as feeling better. Tongue less dry, still brown on the dorsum, and red at tip. Bowels acted upon once during the night. Has taken food. The eruption on the abdomen is disappearing, but the petechiæ are still distinct. Pulse 84, feeble.

14.—Pulse 64, of better volume. General appearance improved, and he speaks better. Tongue clean towards the tip, and more moist. Has had a quiet night, and slept well, and is quite intelligent this morning. Bowels not acted upon. Eruption nearly gone, and purple spots much less distinct. Takes food well. Heart's sounds very feeble, but without murmur. Some little pain in the head, and still complains of pain in the back of the neck, and that his head feels heavy.

15.—Pulse 64, of better volume. Tongue clean towards the tip, and less dry, but brown on the dorsum. Expresses himself as feeling much better, except as to the pain at the back of the neck. Pupils natural, much more intelligent. Bowels not acted upon. Makes water freely. Eruption scarcely to be seen, and petechiæ also nearly gone. Takes food well.

Ordered to reduce the brandy to two glasses, and take the mixture only every four hours; to continue the 2 glasses of wine. Empl. lyttæ nuchæ.

17.—Expresses himself as feeling better, and is cheerful, and says the pain in the back of the neck is quite gone since the blister. Slight vertigo, but no tinnitus. Tongue morbidly red, but clean, except at the base. Pupils and conjunctivæ natural. Eruption gone. Pulse 44; respirations 18. Bowels acted upon once last night. Makes water freely.

19.—General appearance greatly improved. Tongue clean, a little red towards the tip. Pulse 56; respirations 20. Skin cool, somewhat moist. Bowels not acted upon since yesterday morning. Convalescent. To omit the ammonia and bark, and take the following:—

℞ Quinæ disulph. gr. ij., tr. cinchonæ comp. ℥i. ex mist. cinchonæ c. acid. ℥j., ter die. To continue the stimulus.

22.—Greatly improved in appearance and strength. Pulse natural as to frequency and strength. Tongue clean; bowels torpid. To omit the brandy, and take only the two glasses of wine.

28.—To be allowed to get up to-day.

January 4, 1856.—Discharged, cured, on the twenty-seventh day from admission, and the thirty-third from seizure.

ON THE USE OF THE POTASSA FUSA IN THE LOCAL TREATMENT OF BOILS AND CARBUNCLES.

By BENJAMIN TRAVERS, Esq., Jun.

A succession of well-marked instances of the great advantage to be obtained by the use of a powerful caustic like the "kali purum," in securing the safe and far more speedy convalescence of those who are suffering under the above disorders, at any period of life, induces me to request that you will give insertion to the following remarks in an early number of your journal. It is only of late, and, indeed, even now but to a very limited extent, that the Surgeons of this country have begun to appreciate the great superiority of this method. This is not surprising, when we see to what an extent the idea has been discouraged by writers even of our own day. Their objections, however, are unreasonable and unscientific, and they have been advanced by those who knew nothing whatever of the effects of this practice in an experimental point of view, or as a matter of personal experience. In what has been termed the second stage of these collections, provision must be made by means of an artificial opening for the escape of the dead matters beneath the strained and spoiled integument, which in its turn must surely die, albeit more slowly, and to a more limited extent. It should be borne in mind, that we are not here dealing with a texture which has undergone the attenuation consequent upon an interstitial removal, but that the parts are already condemned, and will infallibly die to a limited extent, since they are the seat of a mode of inflammation having a very different event from that which determines the progress of a common acute abscess. Such a collection, when ripe, we prick or cut, in strict submission to and observance of a natural law. For an equally good reason we ought not to cut boils and carbuncles. For the present I must not enlarge on this head, but content myself with observing, that besides the anomaly implied in cutting and wounding a mass of inflamed tissue already disposed to die from excessive irritation, the risk of a fatal hæmorrhage so incurred is by no means an imaginary accident. The subsequent low rate of healing after the use of the knife constitutes another most grave objection to its employment. Dr. Physic, of Philadelphia, has, in my opinion, established an undivided claim to the merit of having first used the caustic potash, with a scientific view, in the treatment of carbuncle. (Vid. Philadelphia Journal of Medical and Physical Science, Vol. II.) He was the friend and pupil of John Hunter, and certainly the most distinguished man of his time in America. He died so lately as the year 1837, and has been called the Father of American Surgery. (Vid. "A Memoir," etc., by J. Rundolph, M.D., Philadelphia, 1839.) Dr. Physic says, "that the suffering ceases so soon as the pain of the caustic has subsided." I cannot do justice to the importance of this observation in a communication like the present, but I possess, and, indeed, am constantly accumulating fresh evidence of its truth, both as regards boil and carbuncle. M. Maunoir, of Geneva, the celebrated Opthalmic Surgeon, strongly advocated this practice. Indeed it needs but a patient trial to convince the least credulous of its extraordinary efficacy. I shall now append a brief notice of four cases demonstrative of the fact, that a corrosive caustic possesses many decided advantages over the knife, in the local treatment of these maladies :—

Case 1.—A. C. is a gentleman under 30 years of age, connected with a Government office. He applied to me in February, 1853, concerning a series of large furuncular swellings, situated about the nape of the neck and occiput. His general health was much impaired, and he thought he had never properly recovered from a large loss of blood which he sustained in the previous autumn, after free incision of a genuine carbuncle, on the nape of which, at this time, the cicatrix was very evident. I may state that this was an instance of the disposition to a speedy recurrence of the local action, which can only be referred to constitutional causes. On two occasions I applied the potassa to collections in this gentleman's neck, which partook, on a smaller scale, of all the features of anthrax. At the same time, I plied him freely with sarza, and the syrup of the iodide of iron. Other incidental measures concerning diet and exercise were suggested, and fully carried out. The patient now recovered slowly, but effectually. The sores consequent upon the use of the escharotic healed kindly and rapidly, and that without incurring the loss of a drop of blood.

Case 2.—In November, 1854, I was asked to see a gentleman suffering under this disease in an aggravated form, the tumour being situated over the point of the right buttock, and the patient no longer young, being much exhausted by continued illness. I applied the caustic-stick freely to the prominent part of the swelling, the skin being somewhat broken already, and the discharge ichorous. This gentleman was convalescent in three weeks, a large and deep fascial slough having parted, and the sore being finally healed in that time. This gentleman took brandy freely, and was indulged with a full opiate at night for some time. I feel sure that had he lost blood by operation, even in moderate quantity, he would not have rallied, being past sixty, much emaciated, and very feeble.

Case 3.—A young gentleman, of independent fortune, formerly in the army, uniformly ailing and dyspeptic, applied to me in August last. He showed me a genuine carbuncle, ripe, and asking for relief, in the usual situation on the back of the neck, right over the nucha. I destroyed a piece of skin in this case, as big as a two-shilling-piece. The after-pain was very severe for about ten minutes. At night I gave him morphia, and ordered a poultice to be applied over a piece of the compound soap plaister, which I commonly put on directly the pain of the caustic has somewhat subsided, and the skin begins to change colour. The discoloration of the integument—its turning first blue, and then black—determines, of course, the fact of its death; after which all pain subsides finally in the part. Ten days after the use of the potassa this gentleman left town. He returned to London a fortnight afterwards, to tell me that he was well. I have seen a fourth case very recently, where the knife had been used, to the patient's lasting disfigurement. The disease was situated in the cheek, extending upwards to the temporal fossa. It occurred in the person of a retired officer, who came to me in great alarm, owing to the disease having appeared again behind the angle of the jaw on the affected side. This tumour was as large as a marble, the skin showing the sieve-like orifices characteristic of "the second stage." Here, again, the effect of the potassa fusa was magical. My patient was comparatively well in four days from the time of its application.

8, Dover-street, December 17, 1855.

I find from a report, which I lately read in a newspaper, that, in 1854, there occurred ninety deaths from "Carbuncle" in the metropolis alone. It is notorious that this and other allied local actions are more frequent and more serious than they used to be ten years ago.

CASE OF SPONTANEOUS RESTORATION OF THE RETROVERTED GRAVID UTERUS.

By JAMES MORRIS, M.D., F.R.C.S.

Mrs. W., married several years, has had but one child, which was born at seven months, but is, however, living and well. After the birth of this child, about four years since, she became again pregnant; in the fourth month, after considerable exertion, she was seized with constipation and retention of urine; the latter was occasionally relieved by the catheter for about three weeks, whe she miscarried; efforts had been made from time to time to replace the uterus but without success.

On the morning of November the 23rd, 1854, she awoke with pain in the pelvic region, and found herself unable to make water; it dribbled away however, and the bowels did not act. After a long walk she had one costive motion, the pain was increased; next day at noon I saw her for the first time: she had not slept, the retention was still incomplete, but the bladder enormously distended; the catheter was used immediately.

The os uteri was nearly out of reach behind the pubes, the fundus pressed upon the rectum; it was evidently wedged below the sacral promontory. She was now about the middle of the fourth month of pregnancy.

Finding on examination per rectum, that the uterus was

immovable by any force which I considered it justifiable to employ, and having recently read Dr. Ramsbotham's advocacy of Denman's treatment, I determined on adopting it. The catheter was used frequently and a senna laxative administered, and she was directed to lie frequently prone, in which position she was easier than when supine; she soon recovered the power of passing urine, and the catheter was only occasionally required. Vaginal examinations were made from time to time, and the uterus was observed to right itself gradually; but a month had elapsed before the process was complete. From that period her health was pretty good, and at the expiration of the eighth month labour supervened. The child was born quite alive, but was very much emaciated, and died shortly after. In conclusion, I think it will be admitted to be at least very probable, that if it had been attempted forcibly to restore the womb to its natural position, miscarriage would have followed, as it did in the same patient on the first occasion.

Park Street, Grosvenor Square.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING NOVEMBER.

(Continued from page 9.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

OPERATIONS FOR STRICTURE, ETC.

Case 1.—A man, aged 35, was admitted into St. Thomas's, under the care of Mr. Macmurdo. Symptoms of stricture had been present for only three weeks. Complete retention of urine had existed for twenty-four hours. Catheterism had been attempted by a Surgeon without success, much bleeding having been caused. The man's sufferings were, in spite of the opium which had been given, severe and urgent. Mr. Macmurdo made a patient trial with No. 4, and again repeated it while the man was faint in a warm bath. No success being obtained, and the bladder being distended, it was determined to operate. A catheter having been passed down to the stricture, an incision was made upon its point and carried on into the urethra beyond, through the strictured part. This done, an instrument was passed from the wound into the bladder, and subsequently through the whole length of the urethra into the bladder. Only about six ounces of urine escaped, the reason why the whole contents of the bladder could not be drawn off not being evident. In the evening, an attack of bleeding made it necessary to plug the wound. By the injection of warm water into the bladder, a free escape of urine was procured. The man remained in the Hospital a month, and left with the wound quite healed and the urethra admitting No. 8 readily. He had had no bad symptoms.

Case 2.—A man, aged 29, on whom in January last puncture of the bladder by the rectum was performed, on account of impassable stricture, was again admitted, under the care of Mr. Birkett, into Guy's, on November 9. He was suffering from retention of urine, but after the use of opium, warm bath, etc., was somewhat relieved. On the following day retention was, however, again complete, and a perineal abscess was forming. Mr. Birkett succeeded in introducing a small catheter, on which he cut down into the perinæum, and divided the stricture. The stricture was in the bulbous tract. The man had not a bad symptom after the operation, and is now convalescent.

Case 3.—An intemperate and very dissolute man, aged 23, under the care of Mr. Cock, in Guy's, on account of stricture, which had existed two years. He was in bad health. The stricture was very tight, and had been for some time an impermeable one. Mr. Cock at length succeeded in passing through it a small grooved staff, (Symes',) upon which perineal section was performed. There were no fistulæ, and had never been any perineal abscess, but the man had been under much instrumental treatment, and there was reason to suspect false passages. In the operation the stricture was found long, and very hard. It was completely cut through, and a full-sized flexible catheter was afterwards retained for about twelve hours. There was no material bleeding. The man did fairly for some days, but subsequently an abscess formed in the back, and all the symptoms of pyæmia supervened. Death took place on the eighteenth day. No autopsy was permitted. The wound was in a healthy state.

Case 4.—A healthy man, aged 35, under the care of Mr. Hutchinson, in the Metropolitan Free. He had been for eight years almost constantly under surgical treatment, on account of a stricture, about three inches from the meatus. No difficulty had ever been encountered in dilating, and, by a few months' treatment, it had generally been found practicable to get it to admit a No. 8. The peculiar feature of the case had been, however, the inveterate tendency of the stricture to recontract as soon as the daily use of instruments was omitted, a month's interval being generally sufficient for it to regain its former state. The stream of urine was, at the time of admission, about the size of a knitting-needle, and with great difficulty a No. 2 steel instrument was passed through. Division of the stricture by external incision, anterior to the scrotum, was performed. After the most anterior one had been divided, a second, not nearly so tight, was found about an inch further down, and it, too, was divided from the original wound. A tract of urethra, about an inch-and-a-half long, was thus slit up, the wound in the scrotum being not more than half-an-inch. The man had no ill symptoms afterwards, and left the Hospital on the tenth day. He is now at the end of a month able to pass a No. 10 with the greatest ease, and the wound is very nearly closed.

OPERATION FOR RUPTURED URETHRA.

A man, aged 56, was admitted, under Mr. South's care, into St. Thomas's, suffering from retention of urine, consequent on a kick from a horse on the perinæum. The retention had been complete for twenty-four hours. There was no extravasation. The catheter, when introduced, always passed out of the median line in the bulbous tract, and it was evident that the urethra was there lacerated. Mr. South made an incision on to the end of the catheter in the perinæum, and having easily found the distal portion of the canal, guided the instrument on into the bladder. The catheter was retained for a few days. The man had not a bad symptom, and left the Hospital with the wound soundly healed.

INCISIONS FOR EXTRAVASATION OF URINE.

Case 1.—A man, aged 48, was admitted into St. Bartholomew's, under the care of Mr. Stanley, on account of extravasation of urine, of twelve days' duration. The swelling of the parts had increased very gradually, but it had now become extreme, the scrotum being the size of a cocoa-nut, the perinæum tense, and the tumefaction extending on the right side over the walls of the abdomen. The bladder reached nearly to the umbilicus. The constitutional distress was not so great as might have been expected. Symptoms of stricture had existed for three or four years previously, and for two months there had been incontinence of urine. Mr. Stanley made numerous and very free incisions into the distended parts. In one part the cellular tissue was so deeply disorganized as to allow the finger to reach the triangular ligament. No attempt was made to find the urethra or to introduce a catheter. For two or three days the man remained drowsy from absorption of urine, but subsequently recovered extremely well. A No. 9 catheter now passes easily.

Case 2.—A man, aged 45, the subject of stricture for some years, was admitted, under the care of Mr. Birkett, into Guy's. He was suffering from extravasation of urine, urinary abscesses, etc., and had also some fistulous openings in front of the scrotum. Free incisions were practised, and a large quantity of purulent urine evacuated. The man recovered well, and the incision and the fistulæ all healed. The urethra now seems free.

PUNCTURE OF THE BLADDER.

A man, aged 58, under the care of Mr. Thompson, in the Marylebone, with impassable stricture and numerous urinary

fistulæ in the scrotum. The scrotum and perinæum were swollen and indurated. No urine passed by the meatus. The swelling about the scrotum and perinæum increasing, and the man suffering much pain and distress, Mr. Thompson determined to puncture the bladder by the rectum. The operation gave great relief. At the time of report no attempt at catheterism had been made, the parts being too much inflamed. From the extreme induration of the parts, it would probably have been found impracticable to divide the stricture by cutting down on the end of a catheter.

EXCISION OF BONES AND JOINTS.

Case 1.—A very strumous lad, aged 18, under the care of Mr. Cock, in Guy's, on account of disease of the metacarpal bones of the left hand. Amputation through the forearm had been recommended in the Margate Hospital. The wrist-joint was sound. Mr. Cock removed by incision into the back of the hand the cuneiform and magnum bones with the carpal two-thirds of the shafts of the metacarpal bones of the little and ring fingers. The metacarpal bones required division by forceps, the others were loose, and all were in a state of carious ulceration. The hand improved considerably in its condition after the operation, and although subsequently it has been necessary to remove the cuneiform also, yet the wrist itself remains unaffected, and hopes are entertained of saving a useful member. *Case* 2.—A strumous boy, aged 14, under the care of Mr. Brook, in the Westminster. The posterior half of the os calcis in a state of necrosis was excised, and the tendo-Achillis subsequently divided. Under treatment.

REMOVAL OF NON-MALIGNANT TUMOURS.

Case 1.—A healthy married woman, under Mr. Birkett's care in Guy's, on account of a tumour in the breast, which had been observed two months. It was excised, and found to be a cyst with numerous intra-cystic growths. The gland itself was not removed. The wound quickly healed. *Cases* 2, 3, 4, and 5.—Fatty tumours of considerable size. In all, the wounds healed well. *Case* 5.—A woman, aged 44, under Mr. Cock's care in Guy's, on account of an enormous mass of warts, involving the perinæum and vulva. Excision. Recovery. *Case* 6.—A woman, aged 30, under the care of Mr. Fergusson, in King's College, on account of an epulis the size of a walnut growing from the alveolus of the upper jaw. Excision. Recovery.

EXCISION OF THE BODY OF THE SCAPULA.

A man, aged 30, small and spare, was admitted into St. Thomas's, under the care of Mr. South, on account of a broadish tumour about the size of an orange, but flattened, which appeared to grow from the body of the scapula occupying its infra-spinal fossa. He had formerly been treated in Paris for syphilitic nodes, and some years ago he had received an injury to the shoulder now affected. The tumour he had noticed only for six weeks, and it was rapidly increasing. There was also a small movable tumour behind the clavicle on the same side. The opinion being that the disease was malignant and originating in the bone, excision of the whole was determined upon. This Mr. South performed in the following manner:—A curved incision having been carried from the acromion to the lower angle of the bone, the flap of skin was dissected up. A spatula was now passed under the neck of the bone, which was next sawn through just below the base of the acromion. The whole body of the bone thus separated was dissected out, and subsequently several portions of diseased growth found in the adjacent soft parts were also removed. The man did well after the operation, the parts granulating freely. He has now left the Hospital, the wound being all but healed. The tumour was found after removal to consist of several quite distinct masses, some of which were firmly attached to the periosteum, but most of which were connected with the muscles only. The bone itself was not diseased. Opinions differed as to the real nature of the growth. Mr. Busk, to whom it was submitted for examination, reported it of the nature of osteo-sarcoma, at points passing into soft cancer, while Dr. Bristowe and Mr. Sydney Jones, who examined it under appointment of the Pathological Society, could discover only the elements of "fibroid tissue." Since the operation the secondary tumour behind the clavicle has disappeared, and the man's health has somewhat improved.

REMOVAL OF EXOSTOSIS.

A lad, under the care of Mr. Holt, in the Westminster, on account of an exostosis the size of a walnut, growing from the upper part of the humerus just below the attachment of the capsular ligament. Excision. Doing well.

REMOVAL OF MALIGNANT GROWTHS.

Case 1.—A woman, aged 66, under care in St. Bartholomew's, on account of an epithelial cancer on the heel, the size of a five-shilling piece. Excision was practised, and the sore slowly healed. *Case* 2.—A woman, aged 21, under care in St. Bartholomew's, on account of a tumour in front of the thigh. It was excised, and found to be of medullary structure. The wound has healed, but the inguinal glands are enlarged. *Case* 3.—A man, aged 68, under the care of Mr. Clark, in St. Thomas's, on account of epithelial cancer of the lip. Excision. Recovery. *Case* 4.—A woman, aged 46, under Mr. Cock's care, in Guy's, on account of a large epithelial cancer, involving the whole left labium. The sore had a foul surface and ragged edges, much resembling in appearance a chimney-sweep's cancer. It had existed for one year. The entire labium was cut away, and the sore quickly healed. *Case* 5.—A man, under the care of Mr. Fergusson, in King's College, on account of cancerous gland in the neck. A cancerous ulcer in the lip had been removed in October. Excision of the gland. Recovery. *Case* 6.—A woman, aged 38, under Mr. Lloyd's care, in St. Bartholomew's, on account of a hard, painful, movable tumour in the left buttock, which had commenced three years before. It was about the size of a small egg, and was situated near the tuber ischii, having ill-defined borders, but unconnected with muscle. In other parts of the body were several similar masses of much smaller size. After excision, it was found to be of cancerous nature. The wound healed slowly. *Case* 7.—A man, aged 40, under Mr. Fergusson's care, on account of a malignant polypus in the nose. It was removed on November 3, but is again increasing.

See "Excision of the Body of the Scapula," "Excision of the Breast," "Excision of the Testis."

EXCISION OF THE BREAST.

Case 1.—A woman, aged 38, under the care of Mr. Fergusson, in King's College, on account of scirrhus of the breast. Excision. Doing well. *Case* 2.—A woman, in fair health, under the care of Mr. Skey, in St. Bartholomew's. The right breast and an enlarged axillary gland were removed on account of scirrhous cancer. The wound healed by granulation. *Case* 3.—A woman, aged 65, under Mr. Tatum's care, in St. George's, on account of scirrhus of the breast. Excision. Under treatment. *Case* 4.—A woman, aged 34, under Mr. Quain's care, in University College, on account of an encephaloid tumour in the breast. It had existed seven months, but had grown very rapidly during the last few weeks. Excision. Doing well. *Case* 5.—A woman, aged 40, under Mr. Erichsen's care, in University College, on account of a small scirrhous tumour in the breast, which had been growing for five years. Excision. Doing well. *Case* 6.—A woman, aged 67, under Mr. Cock's care, in Guy's, on account of scirrhus of the right breast. There was also a mass of cancerous lymphatics in the axilla. Her health was good, and the disease was known to have existed for five years. The whole left breast had been excised by Mr. Key twenty years ago, on account of cancer, and the cicatrix had remained perfectly sound ever since. Mr. Cock removed the breast, but did not attempt to excise the glands from the axilla, on account of their deep adhesions. *Case* 7.—A woman, aged 44, under Mr. Solly's care, in St. Thomas's, on account of a large ulcerated scirrhus of the breast. The operation was performed merely for the sake of getting rid of a large, painful and sloughing mass of disease. It was not possible to leave any skin for a covering to the wound, which latter has been left to granulate. Very great relief has been obtained by the operation. The disease has, however, since made its appearance in the axillary lymphatics, and there is also a hard tumour in the liver. Under treatment.

EXCISION OF THE TESTIS.

A sallow cachectic man, aged 37, under the care of Mr. Simon, in St. Thomas's, on account of enlargement of the right testis to the size of an orange. The disease had existed fifteen months, and had the characters of soft cancer. Excision

was performed, and the disease was found to be medullary cancer, complicated with cholesteatoma. The wound is fast healing by granulation.

GASTROTOMY.

A case in which gastrotomy was performed, occurred in the Children's Hospital, some months ago, and was accidentally omitted from our list. The patient, a child, aged 2, was under the care of Dr. Jenner. Symptoms of obstruction had existed for some days, and no relief had been obtained by treatment. The operation was performed by Mr. Athol Johnson. An incision having been made in the median line, the intestines were exposed, and a large portion of the smaller bowel found in a state of intus-susception. The adhesions, were, however, too complete to admit of reduction. Death followed in a few hours.

OPERATIONS OF NECROSED BONE.

Important operations for the removal of necrosed portions of bone have been performed in 12 cases under care in the different Hospitals. In all instances, the patients are doing well. (Several of the cases are of great interest, but our space does not permit of the insertion of their details.)

LIGATURE OF NÆVUS.

The ligature of nævi in the usual method upon needles, has been performed in 8 cases, in all with success. In a ninth case, an infant at the breast, aged 5 months, was under the care of Mr. Athol Johnson, at the Hospital for Sick Children, on account of a very large nævus over the breast. It was limited to the skin, but had a diameter of three inches. It was ligatured in four parts, without the aid of pins. The wound left by its sloughing was very large, but healed kindly.

PLASTIC OPERATIONS.

Case 1.—A man, under the care of Mr. Erichsen, on account of an opening into the trachea, the result of a cut throat two months before. A flap of skin was transplanted for its closure. The man left with the wound nearly healed. *Cases* 2, 3, and 4.—In these, the usual operations were performed for ruptured perinæum by Mr. Baker Brown, in St. Mary's. Two of them have proved successful, and the third is under treatment. *Case* 5.—A woman, aged 45, under Mr. Brown's care, for vaginal rectocele. The usual operation was successfully performed. *Case* 6.—A woman, aged 28, under Mr. Pollock's care, in St. George's, on account of vesico-vaginal fistula. Several operations had been performed before, all resulting in some benefit. A contraction of the orifice, but not a perfect closure, was procured by the present operation. *Case* 7.—A woman, under the care of Dr. West and Mr. Paget, in St. Bartholomew's, on account of a large vesico-vaginal fistula. The edges were pared, and then united by suture, but no union followed.

THE BROMPTON HOSPITAL FOR CONSUMPTION.

LARGE PERFORATING ULCER OF THE STOMACH, COMMUNICATING WITH THE TRANSVERSE COLON.

(Communicated by E. HOOPER MAY, Esq.)

J. A., aged 40, a shoemaker, was admitted, under the care of Dr. Cotton, on September 18, 1855. He was rather emaciated; of light, but dusky complexion; and anæmic aspect. He complained of pain in the chest after taking food, and thought he was losing flesh. He had no cough nor expectoration. There were no marked physical signs; the chest, however, was somewhat rounded, and with a clear percussion note, the respiratory sounds were only feeble.

History.—He was taken ill six months ago, with cough and slight expectoration; the sputa being, at first, occasionally mixed with a little blood. About the same time he began to suffer after meals with pain in the chest, and a sense of oppression, "as if food could not pass down," and he has been getting weaker, and losing flesh, almost ever since. The cough lasted for two or three months, and then left him, but the other symptoms continued to the time of his admission. Had enjoyed good health previously, and his habits had been temperate; but he had, of late, been unable to live well. About fifteen years ago, he was subject to pain at the stomach after taking food, and vomiting. He had a slight attack of pleurisy on the left side last summer.

A gentian draught, with soda and hydrocyanic acid (♏ v.) was prescribed. He was to have meat and fish diet, with porter and wine (℥ij.) daily.

September 26.—His general aspect has been getting worse since his admission, and he has for some days kept much to his bed, on account of pain in the left lower extremity, of which he has frequently complained. To-day it has been more severe than usual.

October 6 (evening).—For several days he has complained of severe headache, with pain in the epigastrium and sickness, and during the last two, and throughout to-day, especially after meals, he has several times vomited a considerable quantity of yellow matter, having the odour and appearance of rather relaxed fæces. Complains of gnawing pain in the stomach, especially after taking food, and, more than usual, of the oppression and "feeling as if it could not pass down;" also of a sensation of distension. Has several times remarked a "rumbling" about the stomach, as if of liquids. Abdomen generally is rather distended with flatus. There is a firmness to be detected in the epigastrium by pressure; it is tender, especially on percussion. Aspect increasingly anæmic, emaciated, and haggard. Is very patient, and in tolerably good spirits. For the last few days, although there have been no symptoms of wandering, his memory has seemed confused and failing, and he has several times complained of his head feeling "woolly and light." For the last five days he has refused his dinner, and has taken scarcely any food except an egg. Says he has had scarcely any sleep for four or five nights. Pulse about 94, of moderate volume, rather weak; intermits occasionally.

℞ Hydrarg. chlorid. gr. iv. statim. ℞ Acidi hydrocyan. dil. ʒss., sodæ carbon ʒi., liq. opii sedat. ♏ xx., aq. menth. pip. ℥viij. M. Ft. mistura; sumat. coch. ij. mag. 4tis horis. The calomel acted on the bowels, the motion being moderate in quantity, relaxed but not watery, and of light colour. Two or three times, since taking it, he has vomited about the same quantity of matter as in the stool, and of about the same consistence, but of rather a darker colour, indeed nearer that of a normal light motion.

10.—Vomited fæcal matter once the evening before last, not since, though he has on several occasions, before and since, complained of the fæcal taste, and a fæcal odour in his breath has at times been intolerable. Pulse 112, about the same volume, perhaps rather stronger, and less intermittent. Bowels acted the evening before last, and three times yesterday. Motions about the same consistence as vomited matter but rather lighter. Urine free. Complains of no pain in the abdomen, but it is rather tender on pressure, especially in left iliac fossa; a splashing sound is heard on percussion, especially on the right side; percussion dull in part of right iliac fossa, more or less resonant elsewhere. ℞ Hydrarg. chlorid. gr. iij., cras mane. Pt. mist. Beef-tea, jelly, pudding; no meat. Ice.

11.—Has had no sleep on account of pain in the left lower extremity, which is much swollen, especially about the foot. The surface of the limb, especially about the toes, is colder to the touch than the other, and the foot feels colder to himself. Aspect increasingly haggard. Pulse 124, smaller and weaker, but not intermittent. Feels "craving" and is very thirsty. Has not vomited, but feels sick at times. Bowels open twice since taking the calomel, motions same as before. Urine free; sp. gr. 1037; natural. Left limb to be wrapped in flannel.

15.—Slept better last night. Aspect worse. Expression more anxious. Hiccup continues; has been much troubled with it for the last three days. Has no appetite; and after forcing himself to eat has increased feeling of sickness and uneasiness. Has twice vomited a large quantity of light-coloured matter of moderate consistence, and of fæcal odour; but with rather more appearance of containing undigested food than before. Bowels acted once the night before last, and four times since yesterday's visit; motions of about the same colour and odour as vomited matter, but more watery. Pulse 96; small, weak, intermits occasionally. Abdomen slightly tender, but soft except just below and to the right of the umbilicus, where there is a firm-feeling substance. Leg much swollen. ℞ Strychniæ gr. ss., acidi sulph. dil. ʒss., mist. camph. ℥vj. M. Ft. mistura; sumat coch. j. med. 6tis horis.

The symptoms continued without any material alterations

up to the date of death, which took place on the 25th, somewhat more than a month after his admission, and eighteen days from the first occurrence of fæcal vomiting. During the last week of life he had been gradually sinking from exhaustion, owing to the rejection of almost all the nutriment he took, and the frequent recurrence of hiccup and other distressing symptoms. He used to complain much of a craving sense of hunger at times. The bowels continued to act, and, as he became weaker, the motions sometimes passed without his consciousness. The mode of death was indicative of extreme exhaustion, and took place quite quietly.

Autopsy (*twenty-four hours after death*). Body generally emaciated, face, especially, very much so; but the abdominal walls contained about half-an-inch of fat. Lungs very much collapsed. They scarcely crepitated on pressure, and had a remarkably soft, tough, almost putty-like, feeling; colour dark; free from tubercle. At the base of the left lung there were some slight fibrous adhesions. On opening the abdomen, the great omentum was observed puckered up altogether in the centre, and matted into the stomach and transverse colon, where they were in contact. On gently tearing it up, an enormous opening into the anterior wall of the stomach, near the pyloric end, and into the adjacent part of the transverse colon, was at once exposed. About four inches and a-half of the wall of the colon was thus destroyed, and, for about an inch in the centre of this space, so completely, that nothing but the large, smooth, muscular band remained. The opening into the stomach corresponded with this, as far as it went, and the two seemed to be agglutinated together by the adherent omentum. But the aperture in the stomach appeared to extend for about an inch and a-half further, reaching to within a little more than an inch of the pyloric orifice, a portion of the omentum being glued to the edges, thus preventing any communication between the stomach and abdominal cavity. The ulcerated edges of both stomach and colon were dark, and in some parts very jagged and thickened, but not hard. The stomach and intestines, elsewhere, appeared healthy. The stomach and large intestine contained some slightly feculent matter. The small intestines were empty. The brain was not examined. All the other organs were healthy. The heart and spleen were small.

This case is especially interesting on account of its rarity. On making the dissection it was satisfactory to find that the symptoms had led to a correct diagnosis. It resembles a case of Dr. Combe's, recorded by Dr. Abercrombie in his work on Abdominal Diseases. It also resembles, pathologically, two cases lately brought before the Medico-Chirurgical Society of Edinburgh, by Dr. W. T. Gairdner; but in at least one of these, there was no fæcal vomiting.

NOTES AND QUERIES.

Ye that questioneth much shall learn much.—*Bacon.*

No. 81.—Temperature of the Vagina after Parturition.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I believe many of your readers would, with myself, like to know if there is no mistake in the statement that Réaumur's thermometer was employed by Dr. Hecker in the researches of which your last number has given so interesting an account. According to this account the temperature of the vagina has been found to vary between 37° and 38°·9 Réaumur. These degrees are equal to 46°·25 and 48°·625 centigrades, and to 115°·25 and 119°·525 Fahrenheit.

It is well known that Dr. Granville (Philos. Trans. 1825) had announced that the temperature of the uterus, during parturition, sometimes rises as high as 120° Fah. (48°·89 Centig., 39°·11 Réaumur). It is well known, also, that almost all the Physiologists who have spoken of Dr. Granville's observation, believe he has been mistaken. Besides, according to a few observations made under the direction of Professor Dunglison, of Philadelphia, the temperature of the vagina and uterus after parturition has been found to be only 100°, 102°, and 105° Fah.

If really Dr. Hecker has made use of the Réaumur's scale, which is so little employed now, and if he has found it as high as 38°·9 (*i. e.*, 119°·525 Fah.), his observations confirm the astonishing and almost incredible statement of Dr. Granville. Now, as Dr. Hecker has found that the increase of temperature of the vagina is not a local one, and that the same increase exists in the axilla, we may draw from these observations the important conclusion, that during parturition, which is a physiological phenomenon, the degree of animal heat is higher than in the known cases of highest increase in disease. Sir Benjamin Brodie has found 111° in a case of fracture of the spine; Sauvage, Currie, and Chisholm have found 112° in cases of fever; Dr. Bennett Dowler has found 110°, 111°, 112°, 113° in cases of cholera and yellow fever; Doyère has found 110° in cases of cholera; and Dr. John Day 113° (three and a-half hours after death) in a case of acute rheumatism. In none of these cases had animal heat gone so high as in parturition, according to the observations of Dr. Granville and Dr. Hecker.

The normal degree of the temperature of the vagina in women pregnant or not, but not at the time of parturition, has been found, by Berger and Maunoir, and by Dr. Brown-Séquard, to vary between 100°·5 and 102°. If Dr. Hecker's observations are right, they prove that an increase of about 18° Fah. takes place in the vagina during parturition. Besides, as sometimes the temperature of the axilla is at about 98°, it follows that, in a parturient woman, there is occasionally an increase of about 20°, and even a little more, if Hecker has found in the axilla the same temperature as in the vagina.

I hope, Mr. Editor, you will be kind enough to give me and your other readers, who must have been surprised as I have been, some information as to the thermometer employed by Dr. Hecker. I am, etc. B. S.

No. 82.—Wainwright an Alleged Poisoner.

Sir,—Where can I find an account of Wainwright, an alleged forger and poisoner, who was suspected to have made away with his wife about thirty years ago at Boulogne?

I am, etc. P

ANSWERS.

To No. 77.—Anæsthesia from Cold.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In the last Number of the *Medical Times and Gazette*, the resident Medical officer of the Berkshire Hospital asks whether any of your readers have found wounds made by the Surgeon in parts congealed in order to produce anæsthesia, heal by the first intention. He says that he has not done so, and informs us, moreover, that in many wounds the parts sloughed, and (to complete the climax) that "in all, the cuticle was destroyed and afterwards peeled off."

I shall only observe in respect to these allegations, that it is extraordinary this gentleman should have persisted so long in the use of a measure which he found so noxious, and still more extraordinary that both the Surgeons of the Berkshire Hospital, under whose orders he acted, should have done me the honour (one some months since, and the other very recently) to send me a report of the successful use of anæsthetic congelation in that hospital. One of these reports appeared in the *Medical Times and Gazette* of the 22nd ult.

I will, however, with your permission, take advantage of the present occasion to remark, that among the numerous reports of the use of congelation that have appeared during the last two years in the British and foreign Medical journals, and others which have reached me privately, there have been only two in which the wound is said not to have healed kindly. I consider this testimony of the speedy or favourable healing of the wound, to be a high encomium on congelation, and of much more importance than any testimony respecting its anæsthetic powers. For, as operation wounds under or not under chloroform do not always heal kindly, or do not heal at all, the few alleged instances of protracted healing after congelation would, even if well founded, as being only exceptions to a rule, show its beneficial operation in promoting healing.

The following are the two exceptions which I have alluded to:—

About six months ago the President of the London Pathological Society mentioned, on the occasion of one of the members stating that he habitually employed congelation in his operations, that he had heard of a case where the wound did not heal kindly after its use. On inquiry afterwards, I

learned that congelation, properly speaking, had not been employed in this case at all. Ice alone had been employed as a frigorific, reducing the temperature to only 32° of Fahr. Nor was it by any means certain that the tardy closure of the wound was to be attributed to anæsthetic means employed, and not to the constitution of the patient.

The other apparent exception occurred very recently in one of the Borough Hospitals, and is very instructive. The operation was the excision of a small tumour on the chest. The wound healed by granulation and slowly, but no suture had been employed to unite its edges, and, from its situation, it was likely to be affected by every motion of the arm. In this case a frigorific mixture of ice and salt had been kept in contact with the tumour for the long space of 20 minutes, and no cold had been applied after the congelation had ceased, in order to prevent the rapid return of the normal temperature and the tingling sensation caused by it.

Now, I do not consider that congelation was properly employed in this instance. M. Coste, who has probably used congelation as extensively as anybody, and a translation of whose paper on the subject appeared in the *Medical Times and Gazette* on the 24th of November, speaks of having applied the frigorific for ten minutes, but only in cases where its usual speedy effect was prevented by the inflamed condition of the part. As a rule he operated almost immediately on the occurrence of congelation, and this usually takes place in less than a minute when a properly prepared frigorific mixture is employed.

It is important to know that an application of twenty minutes only lowers the vital actions of the part. I will not go so far with M. Coste as to say that sloughing from remedial congelation is impossible, but I trust that such gross mismanagement as would cause it will be of very rare occurrence. I have tried to make an issue by producing a small slough by long-continued congelation, but have failed; and, conversely, I have completely cut off a circular piece of skin after congelation, and on re-applying it over the raw surface it has adhered by the first intention within twenty-four hours, leaving only by its contraction a small exposed circle for the issue beads. I am, etc. James Arnott.

London, December 4, 1855.

Additional to No. 77.

Sir,—I beg to state, in answer to a querist in your last number, that, although I have little experience of intense cold in operations, I have often used it to suppress external inflammation, and can vouch for its strong antiphlogistic powers. As a preventive, therefore, of erysipelatous or other inflammation after wounds, whether produced by the Surgeon or by accident, I should consider it of great value, though I can well conceive that, if it be pushed too far, it may prevent that moderate, healthy degree of inflammation which, according to Hunter, (though Macartney has disputed this,) is necessary for union by the first intention. In preventing an excess of inflammation, we must not depress the vital energies too far: in avoiding Scylla, we must not fall upon Charybdis.

In opening abscesses under congelation, I have not found that the wound is more easily kept open than under common circumstances. The best test of its extraordinary antiphlogistic power is its application to the closed eyelids in ophthalmia. It effects more in five minutes than the ordinary measures do in five days. The very interesting account in your foreign article, of the employment of ice after the operation for cataract and in hernia, has respect to the preventive powers of cold; but to be sufficiently curative, it requires to be more intense, and to be produced by a mixture of ice and salt. I am, etc. M.D.

January 6.

Deaths in Public Institutions for the Week ending January 5:—

	Males.	Females.	Total.
Workhouses	74	86	160
Prisons	2	..	2
Military and Naval Asylums ..	9	..	9
General Hospitals	42	19	61
Hospitals for Special Diseases ..	4	8	12
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	2	..	2
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	3	4	7

Medical Times & Gazette.

SATURDAY, JANUARY 12.

IS VACCINATION PERFORMED WITH SUFFICIENT CARE?

When Parliament meets, it is to be hoped that early in the Session, before Easter, some few hours will be devoted to the amendment of the Vaccination Act; and we venture to hope that, whatever other improvements may be effected, the care and superintendence of Vaccination will be taken from under the sordid control of the Poor-Law Board, and transferred to the Department of Health.

We trust that none of our readers failed to notice the letter from Mr. W. B. Kesteven, which appeared in our last number. The question which it raises is one which involves the very character of the Profession. It is alleged that the operation of Vaccination is often performed most carelessly. Let us see on what grounds this allegation rests; what reasons can be brought forward in extenuation, if the accusation be a just one; and what remedies can be provided for the future.

It seems that with regard to Small-Pox, the amount of protection which we have enjoyed during the last forty or fifty years, from Vaccination, has engendered a false feeling of security, and a carelessness in the application of the preservative measure. Besides, England is a free country; it has been the work of half a century to induce our legislators to make Vaccination compulsory; and there is among the vulgar in all countries, and the English vulgar especially, a certain period of time necessary to wear out their aversion to all new remedies sanctioned by the better educated classes. At its first introduction, Vaccination was opposed by a certain set of moralists, clergymen, and gentlemen; five-and-twenty years later, its chief opponents were the tradesmen and middling classes; now it is accepted by all but the most uneducated, who can "recollect their father saying, that Justice Such-a-one used to say, that it was wicked to put a disease from a horned animal into the body of an innocent baby: and that, if the Almighty didn't mercifully send Small-Pox to take away some of us, we should multiply so fast, that we should be obliged to eat one another up."

The proof that Vaccination is carelessly performed in England lies in a nutshell. A century since, in round numbers, the loss from Small-Pox was at the rate of from 80 to 100 of every 1000 deaths. For instance, in ten years ending 1780, the London deaths from Small-Pox were 98 in the 1000 deaths; in Lower Austria during the ten years ending 1786, they were 67 per 1000. But during the ten years ending 1850, the London deaths from Small-Pox were 16 per 1000; in Dublin, 25 per 1000; in Edinburgh, 19 per 1000: in which cities Vaccination was not compulsory. On the other hand: in Lower Austria, the mortality was 6 per 1000; in Lombardy, 2. These are countries in which Vaccination has become compulsory. To adopt the words of the well-known and valuable Vaccination Report of the Epidemiological Society, in 1853, the mortality from Small-Pox in England and Wales is considerably more than double what it is in any country where Vaccination is compulsory. Moreover, "the proportion of deaths from Small-Pox in London to the total mortality is three times, and in Glasgow as much as six times, what it is in Brussels, Berlin, or Copenhagen."

But the allegation is, not merely that numbers of the popu-

lation were a few years since, and still are, not vaccinated at all, but that now they are vaccinated imperfectly and carelessly; and that imperfect or careless Vaccination affords very inadequate protection. This is proved conclusively by Mr. Marson, in his well-known communication to the Medico-Chirurgical Society in 1853. Out of 3094 patients who had the Small-Pox after Vaccination, 1357 had *one vaccine cicatrix* only; moreover, by comparing the vaccine marks of foreigners with those of the English, it was evident that Vaccination was performed more carelessly among the latter than among any other, the French excepted.

To these formal and numerical statements, may be added a large mass of testimony, such as the following:—

"Mr. Kinmell, one of the Medical officers of the Warwick Union, complains of the inefficiency of the Vaccination Act, in consequence of the inadequate remuneration. *No Medical man will take any trouble;* the consequence is, that thousands who are vaccinated are never inspected afterwards, and that numbers never pass through the disease at all."

"Mr. Robinson, of Bodmin, says,—'The Board of Guardians appointed a Medical man, at a very low fee, to vaccinate in twenty-one parishes (statute acres 87,410, population 20,790). Stations were appointed, and the hour fixed for mothers to bring their children, and there was an end of it; little attention being paid to the eighth day either by the Doctor or the mother; the former could not go to see his patient on account of the remuneration, and the latter could not attend at the station with her child, because it was washing-day. Such was the way Vaccination was carried out in our district, for the truth of which my Medical brethren will vouch.'"

Such testimony is abundantly sufficient to establish the statement made by Mr. Kesteven; and it shows clearly enough the cause and excuse. Men must live. They must take the parish, or be liable to share, with a hungry rival, the practice of an already ill-paying district. The wretched eighteenpence is no compensation for the time absorbed in getting the people together; in making carefully the requisite number of punctures on each child's arm, and ensuring the infection of each puncture; in registering the fact, and inspecting and registering its results, and in writing two certificates besides: and whatever is ill-paid, will always in the long run be ill-done.

The obvious remedies are,—better pay, and inspection of the work by an Officer of Health, or some similar functionary.

If any of our brethren, who do not quarrel with the proposal to increase the pay, yet think inspection derogatory, we will only reply, that no reasonable man who is well paid for his work, can refuse a guarantee that the work done is really what it pretends to be.

THE WEEK.

At an inquest held lately at Hackney upon two children, aged respectively five and seven years, the Jury brought in a verdict of wilful murder by starvation against the parents. These persons have been tried, and the male prisoner has been convicted of manslaughter. It must be observed, as a somewhat curious fact, that notwithstanding the great amount of destitution which prevails in this, and indeed in all countries, deaths by actual starvation in great cities are not, we believe, very common, or, at all events, the symptoms during life and the *post-mortem* appearances are not often recorded. As far as we can judge in the present case, the evidence of starvation is as complete as it well can be. The Medical witnesses did not discover any disease to account for death, but there was a total want of fat throughout the body, all the adipose matter being of course consumed to supply the respiratory process. Whether the deaths were really due to starvation, or whether there were any other cause; and whether, admitting the children to have been starved, the parents were guilty of wilfully withholding food, or whether they did not possess the means of giving it, are questions which were, of course, asked, and, no doubt, answered, at the trial. The prisoner has not yet received his sentence, and in the mean time, we cannot but shudder at the idea of any of our fellow-creatures perishing for want of food in the heart of our great population; and we regret, for the sake of humanity, that any parents could be guilty of so atrocious a crime.

The Rugely poisoning case still continues to excite intense interest, and day after day some new horror takes the prominent place in the public mind. Although we are in possession of some very important facts, in connexion with this dreadful affair, we conceive it to be more prudent to withhold them, until the law has been allowed to take its course. Revelations of the most extraordinary character, with reference not only to the dead, but to the conduct of the living will shortly be made, and will probably require the direct interference of the Government. From the extensive connexion of Palmer with the operations of the "Turf," and his acquaintance with the late Lord George Bentick, a rumour has lately been propagated, that his Lordship's sudden death was due to poison administered by Palmer; but we believe this suspicion at least to be wholly groundless.

A few of the elections of Medical Officers of Health have already taken place in some of the Metropolitan districts. Dr. Bristowe, of St. Thomas's Hospital, has been elected by the Vestry of Camberwell, and there can be no doubt of the propriety of the choice which has here been made. In the united parishes of St. George's and St. Giles's, Bloomsbury, Mr. Thomas Hunt has been elected, having beaten Dr. Richardson, the Editor of the *Journal of Public Health*, by a large majority. Dr. Lankester has been elected by the Vestry of St. James's, Westminster. In many of the districts the Vestry has shown no alacrity even to fix the salaries of the Medical Officers, and still less to elect them. In a very large Metropolitan district it is said that a majority of the Vestry is resolved to elect a gentleman who, although possessing a Medical qualification, is avowedly practising as a chemist and druggist; and, if our information is correct, sells patent medicines. We shall be very happy to find that our information is incorrect, and that some of the eminent scientific gentlemen who are in the field will be chosen by the electors. The Paddington Vestry, which has taken a very judicious course in referring the testimonials of the candidates to a committee of eminent Professional gentlemen, has not yet made a choice; but we have every reason to hope, considering the well-known character of the gentlemen chosen as referees, that, following their advice, it will be a satisfactory one. Mr. Ede, of Belle-Isle notoriety, is a candidate for the parish of Islington. A gentleman who is a candidate for a central district, publishes in a circular his contributions to Medical science in the field of obstetrics and uterine pathology, and at the same time warns the electors not to choose a specialist.

The Metropolis Water Companies (under pressure of Acts of Parliament) are busy, taking one element of complaint, at least, out of the mouths of the "Sanitary quacks," as some are pleased to term the vigilant watchers of the public health. It is well known that a great excess of deaths from cholera occurred, in 1849 and 1854, where bad water was supplied; but now the inhabitants of London may congratulate themselves that they are in a fair way of being supplied with a comparatively pure and wholesome water. The particulars in the Table, at page 49, will be found interesting; and as the

Registrar-General observes, "When at a future time the effect of the improvement of the water-supply on the health of London shall be investigated, the results, it may confidently be expected, will be as gratifying as the results of the former inquiries were painful."

Two mothers have been tried this week, aged 25 and 33 respectively, for the murder of two children each, by throat-cutting and by drowning. Both parties have been acquitted on the ground of insanity. In the one case, the delusion was, that the children "had no clothes to go out in;" in the other that the children inherited scrofulous disease. We impugn not the evidence which has saved these women from the gallows; but we feel that it is becoming a serious question in criminal jurisprudence how far *a delusion* is to be constituted the line which, overstepped, is to be the ground of acquittal for murder. Is every jealous husband or wife—jealousy for which no cause existed, and therefore constituting a delusion—are such parties to have a *carte blanche* for putting out of the way by murder the object of their delusion, on the condition that they are kept during Her Majesty's pleasure at the expense of the State? We have heard that there are at present living under such sentences many prisoners who, after a short incarceration, have exhibited no such symptoms as those which a jury gladly clutched at to save them from hanging a fellow-creature; and it would be interesting to have a Parliamentary return of the present mental condition of such individuals after careful examination and watching by Medical Commissioners appointed for the purpose, of course unknown to the prisoners. Another point is, that, in the two cases mentioned above, the "delusions" had existed for some time. Now, if such delusions are to constitute, by law, the exemption from punishment for murder when committed, should not the subjects of such delusions be brought early under the surveillance of the State, by which such unhappy results as those detailed might be avoided? This principle is acted upon in some cases, why not in all? We talk much of State education, let us have a State Anti-delusion Asylum. There would not be many hypocrites among the scholars, and many lives might be saved.

An outrage upon decency and upon public health has been perpetrated at Rugely by the opening in a public coffee-room, of two coffins, containing the bodies of persons long since dead, and supposed to have been poisoned by Palmer, who stands charged with the murder of Mr. Cook. When these coffins were opened, a most horrible effluvium of course escaped, and many persons are reported to have been seized with illness in consequence. Surely the Medical men engaged in the investigation must have protested against such monstrous impropriety, which was not only uncalled for by any legal necessity, but was excessively dangerous to life and health.

We have recently read with attention the interesting and able report drawn up by the Committee, of which Mr. Macaulay was the Chairman, appointed by the Paddington Vestry to lay down the duties of the Health Officers, to be elected under the new Metropolitan Act, as well as to determine the best manner of securing for the parish the services of a gentleman qualified to fill this important post, and efficiently carry out the purposes of the Act. We were led by this Report, which has been adopted by the Vestry, to imagine that the parish of Paddington was about to set a praiseworthy example to the other Metropolitan parishes, and to show that the ample powers entrusted to the Vestry were to be justly and fairly exercised. We learn with great regret, that it is the intention of certain members of the Vestry to use their utmost endeavours to promote the election of a candidate who is understood to avow his unwillingness to comply with the conditions provided by the Report, and whose present position as a vestryman of the parish renders him ineligible for the office. We trust that we may be misinformed, and that if such a design has been contemplated, it will be found to be supported only by a very small minority. We conceive that such a departure, both from the spirit of the Report and the intentions of the Act of Parliament, would involve, on the part of the Vestry, not only a stultification of its own proceedings, but that it would be an insult to the eminent men, the assistance of whose counsel it is proposed in the Report to obtain, and an act of the grossest injustice to those gentlemen who have placed themselves in the position of candidates.

At the meeting of the City Commissioners of Sewers, on Tuesday last, Dr. Letheby reported, that the Union Medical Officers of the City of London had ceased to supply him with the sanitary information which they had been in the habit of furnishing to his predecessor. Upon inquiry into the reason of this change, he was informed by the Medical gentlemen in question, that they declined to give in their weekly reports as usual unless they were recognized as Assistant Sanitary Officers, and remunerated for their services. While regretting that the cause of sanitary science should suffer from any misunderstandings between members of our own Profession, we confess our opinion that the Union Medical Officers are not without a plausible case on their own behalf. It is stated that Mr. Simon's reports were founded in great measure upon the information given by the Union Surgeons; and it is well known that that gentleman has received an ample, though not undue, measure of public gratitude for his exertions, while the gentlemen who toiled night and day in the dwellings of the sick, for a miserable and inadequate pittance, have received no gratitude at all, and their names have not even been mentioned. Dr. Letheby, in making this report, accompanied it with no comments; and we cannot but feel for the somewhat unpleasant position in which he has been unavoidably placed by circumstances not under his control.

A young man who is said, and we believe this time truly, to be a Medical student, has narrowly escaped being sent to Newgate on a charge of felony, for wrenching off knockers from some doors in Belgravia. Upon consideration, the Magistrate allowed the youth to depart upon his paying a fine, and upon his expression of contrition for the folly of which he had been guilty. The admonition given by the Magistrate was a very just one, and deserves the perusal of the many foolish young men who amuse themselves in the absurd manner now alluded to. In too many instances we believe that the junior members of our Profession are made to bear the sins of a number of scamps, who pretend to be Students of Medicine in order to give themselves an air of apparent respectability; and we hope that henceforth not even an isolated example will be found, in which a youth who is pursuing the noble science which we profess, will ever demean himself by thoughtless actions which put him on a level with a schoolboy, and which may, if repeated, cause his incarceration in prison as a felon.

A case of what may, perhaps, be popularly termed monomania, has this week been brought before the Central Criminal Court. A person, advanced in life, and said to be highly respectable, has entertained the suspicion, which is proved to be wholly groundless, that his wife had formed an improper connexion with a clergyman, who is rector of a parish in Norfolk. The unfortunate man not only entertained this delusion, but took means to avenge himself of the supposed injury by

sending threatening letters to the clergyman, and on one occasion he seems to have entered the church where the latter was officiating, with the intention of shooting him, but by a fortunate accident, the monomaniac left the bag containing the loaded pistol at the inn, and brought another bag into the church. His murderous intention was, therefore, frustrated; but he was brought to trial, and pleaded guilty to the charge of sending threatening letters. Mr. Justice Erle, who tried the case, allowed the prisoner to depart, upon his giving a positive pledge that he would not again annoy the prosecutor, and upon his finding bail for his good behaviour, and for his appearing to receive judgment if he should be called upon. Instead of keeping his promise, however, the prisoner continued to annoy the clergyman in such a manner that his bail were summoned to surrender him, which they accordingly did at the present sittings of the Central Criminal Court. The Recorder very properly ordered him to be detained; and we hope that no time will be lost in consigning him to safe keeping. Our only wonder is that he was ever allowed to escape at all, after giving such manifest evidence of insanity as attempting to murder a gentleman who had given him no offence; and if he had unfortunately effected his purpose, not only would a valuable life have been sacrificed to the freaks of a madman, but a deep scandal would have been cast upon British Jurisprudence. Mr. Justice Erle is highly to blame for treating the matter so lightly in the first instance.

REVIEWS.

The Journal of Psychological Medicine and Mental Pathology. Edited by Forbes Winslow, M.D., D.C.L. New Series. No. I. January, 1856.

The spirited manner in which the *Journal of Psychological Medicine* has been conducted, has long rendered it a most valuable periodical contribution to our knowledge of the Mind and its Morbid Conditions. This year, the Editor commences a new series, and his first number is full of interesting and useful matter. It begins with a Psychological Quarterly Retrospect, by Dr. Winslow, in which all the events bearing upon Psychological Medicine, that have occurred during the last three months in this or other countries, are ably commented upon. This new and interesting feature of the *Psychological Journal* is to be continued in each succeeding number. After this Retrospect comes Part I., which is devoted to Original Communications, and among these are, a very good article upon the Psychology of War; one on the Connexion between Morbid Physical and Religious Phenomena, by the Rev. Mr. Denham; Notes of a Visit to the Public Lunatic Asylums of Scotland, by Dr. Webster; a very curious narrative in the Autobiography of the Insane, by a patient once confined in Bethlehem Hospital; and a paper on some unrecognized Forms of Mental Disorder, by the Editor. The rest of the number is occupied by a Review of Dr. Russell Reynolds's Work on the Diagnosis of Diseases of the Brain and Spinal Cord, which Review comprises the Second Part. Part III. contains Selections from Foreign Psychological Literature; and Part IV., which is entitled the Judicial Department, contains an Exposition of the Law relating to Chancery Lunatics, and a Report of a late important Medico-legal trial. The whole of the number will amply repay perusal.

Ueber die Cystengeschwülste des Halses. A Treatise upon Encysted Tumours of the Neck. By Dr. E. Gurlt. Pp. 284. Berlin: 1855.

The morbid growths which form the subjects of the present monograph are the following: — 1. Congenital hygroma, ranula congenita, hygroma celluloso-cysticum. 2. Hygroma thyreo-hyoidea, grenouillete sous-hyoïdienne. 3. Struma cystica, bronchocele aquosa. 4. Hygroma cellulare colli, hydrops cysticus subcutaneus colli, aqueous encysted tumour of the neck. 5. Hematocele du cou, cystes sanguins du cou. 6. Cysts of the neck with pultaceous contents. 7. Cysts containing hair, bones, teeth, etc. 8. Encysted echinococci of the neck.

These several morbid growths are met with, the author observes, on the anterior region of the neck, described by the line of the sterno-cleido-mastoid muscles and the lower maxilla, seldom or never being found in the posterior regions of the neck.

Dr. Gurlt has bestowed much time and trouble in collecting as complete a history of each of these forms of disease as is afforded by the records of surgical works and journals; the symptomatology, anatomy, etiology, course, diagnosis, prognosis, and treatment of each, being fully entered into and illustrated by the narration of cases gathered from authentic sources.

The character of this treatise forbids a satisfactory abstract within our limited space. The brief statement of its contents now given will, however, be sufficient to indicate its value to the Surgeon.

Die Künstliche Frühgeburt, monographisch dargestellt von Albert Krause, ordentlichem Professor der Medicin zu Dorpat. A Treatise upon the Induction of Premature Labour. 8vo. Pp. 368. Breslau: 1855.

The author of this monograph has given an instance of the proverbial German industry and patience of research in this collection of materials, which lie scattered over very extensive regions of Medical literature. Dr. Krause presents a history of the induction of premature labour from its earliest recorded instances down to the latest dates of its performances. He has also expounded the reasons for having recourse to the operation, on both therapeutical and prophylactic grounds; the different methods that have been adopted for obtaining this result; and, statistics showing the frequency with which the operation has been practised in the several European nations and in America, together with the results in each of these countries. In giving this latter information, Dr. Krause has transferred to his pages the published narratives, or at least abstracts, of all cases recorded in journals or treatises on Midwifery. These alone occupy upwards of half the book.

Dr. Krause makes it apparent that premature labour is more frequently induced in Germany than elsewhere, and next in frequency in England. In England the operation is had recourse to almost exclusively, he adds, in cases of contracted pelvis; in France, morbid states of pregnancy more frequently determine its employment; in Germany, the author says it is had recourse to in a proper ratio under both of these circumstances.

With regard to the different methods of inducing premature labour, the author infers that fatality to the mother more frequently follows puncture of the membranes, the use of sponge tents, and the douche, than in other methods. Dr. Krause considers the premature discharge of the water, and the employment of substances that may excite irritation of the vagina, as objectionable. He further finds that the use of ergot of rye is followed by a high rate of mortality to the children, while its action on the uterus has been uncertain. Dr. Krause, therefore, proposes a plan which consists in the use of an instrument for the artificial dilatation of the os uteri, and the injection of a stream of water between the membranes and surface of the uterus. Each case, however, the author observes, must be treated on its own special requirements, as one uniform rule for all cannot be laid down.

The pains bestowed upon the collection of his materials by the author, entitle him to great credit; while the intrinsic character of the treatise constitutes it a useful addition to the literature of Obstetric Medicine.

The London and Provincial Medical Directory. 1856.

This volume fully maintains the character gained by its predecessors. The Obituary this year is unhappily very copious, the numbers being swelled to a great extent by the deaths of our brethren serving in the East. In addition to a careful revision of the body of the work, the following new features have been added, viz.: — A List of the Militia Surgeons of England and Wales; a List of the Coroners for towns and boroughs; a list of the Medical Officers serving in the East; a list of Provincial Medical Societies; and a list of the Acts of Parliament relating to the Medical Profession.

The labour of compiling such a work as the "London and Provincial Medical Directory" must be enormous, but the results are worth the pains, and the volume is almost as indispensable to the Medical Practitioner as his pocket-book.

PROVINCIAL CORRESPONDENCE.

IRELAND.

DUBLIN, December, 1855.

IN my last letter but one, I gave a brief account of the first meeting for the present session of the Pathological Society of Dublin. Since that time three meetings have been held, the President of the Society, Dr. Stokes, on each occasion, in the chair. On the 1st of December Dr. Bigger brought forward two cases of caries of the temporal bone, resulting in the discharge through the external meatus of its petrous portion. In the second case this occurrence took place in both ears, and it was remarkable that in all the three bones thus removed, the internal wall of the carotid canal had been wholly absorbed, so as to admit of the discharge of the bone without injury to the artery. Dr. Bigger observed that a nearly similar case had been, some years before, brought before the Society by Sir Philip Crampton.

Dr. M'Dowel presented a specimen of Contraction of the Left Auriculo-ventricular Opening. The case, the history of which he detailed, afforded an example of mitral contraction without regurgitation, and was consequently unattended with bruit. The diagnosis had been based upon the general signs, such as the striking disproportion between the heart's impulse and the pulse at the wrist; the manifest obstruction to the pulmonary circulation; and the hæmatemesis and jaundice indicative of hepatic congestion.

Dr. Corrigan exhibited a Multilocular Tumour, taken from a patient who had died of ovarian dropsy at the age of 34. It consisted of one very large sac, capable of containing twelve quarts, to which were attached a number of small semi-solid cysts of different sizes, situated in the cavity of the pelvis and the iliac regions. The shape of the abdomen had strongly resembled that usually produced by pregnancy. The growth of the tumour had been so rapid that, although its first appearance dated only from December, 1854, it was in the following May found absolutely necessary to resort to tapping, in order to prevent death by suffocation. Paracentesis was repeated on six several occasions, without being followed by any unfavourable symptom; but in performing the operation for the seventh time, on the 26th of October last, the trocar wounded one of the smaller tumours, giving rise to subsequent low peritoneal inflammation, which terminated in the death of the patient.

At the next meeting, Dr. Banks exhibited the post-mortem appearances presented in a case of Diffuse Peritonitis, supervening on degenerative disease of the kidney, in a man aged 40, and of intemperate habits. The progress of the disease, or rather diseases, had been exceedingly rapid. On opening the abdomen, signs of extensive peritonitis were observed. The kidneys were large, one weighing ten, the other twelve ounces. The cortical substance was very much thickened, and contained some fat; the tubuli were enlarged, and filled with a pale, amorphous deposit. Tubercles were found scattered through the substance of the right lung; at its apex was a very small cavity. There was no lesion of the heart.

Dr. M'Clintock presented a Polypus that had been removed from the uterus by ligature. It was of the fibrous kind, about the size of a goose's egg, and weighed nine ounces. Five days elapsed from the application of the ligature to the separation of the tumour. When examined microscopically, it was found to consist of fibrous and fibroid tissue, the latter bearing the closest resemblance to the normal muscular structure of the uterus, thus corroborating the pathological views of Vogel, Oldham, and Robert Barnes, as to the muscular nature of these growths.

Dr. Gordon described a case of Quartan Ague, occurring in a dairyman, aged 20, which ran into non-maculated typhus fever. The sounds of the heart were natural, and perfectly distinct until the twenty-eighth day after his admission into Hospital, when a loud *bruit de soufflet* was superadded towards the base of the heart. From the absence of any previous symptoms, or signs of cardiac disease, Dr. Gordon considered the murmur to be of the nature of that designated by Dr. Stokes as the "typhoid anæmic murmur;" and, accordingly, ordered an additional quantity of wine and diffusible stimulants. The murmur persisted on the following day, with evidence of the sudden supervention of extensive emphysema of both lungs. The patient died rather suddenly, on the morning of the thirtieth day after his admission; and, among other morbid appearances, a well-formed fibrinous coagulum was found in the right ventricle of the heart, passing into the pulmonary artery, and through several of its ramifications. It was exceedingly firm and strong, and was formed of concentric layers.

Dr. Swettenham, Staff-Surgeon, presented a small Fibro-Cartilaginous Tumour which he had removed by excision from the knee-joint of a soldier, who had been sent from his depôt at Mullingar in July, 1855, with a view to being discharged the service, on account of a foreign body in the right knee-joint. The operation was performed on the 28th of September, and on the 30th of October the patient was dismissed from Hospital, perfectly cured, to join his corps for duty.

Dr. Mayne showed a case of Tubercular Disease of the Brain, characterized during life by intense and persistent pain in the occipital region, which had obstinately resisted all modes of treatment. There was no evidence of tubercular development in any other organ which could assist in the formation of a diagnosis, though after death tubercles were found in the lungs.

At a meeting held on December 15, Dr. Lees brought forward the case of a young woman who had, about two months previously, come up to Dublin in the capacity of a servant, at which time she was apparently in the enjoyment of robust health. Soon after her arrival in town she began to complain of severe headaches occurring at intervals. On Sunday, November 25, a very violent attack came on, accompanied with sickness of stomach; she was then seen by a Practitioner, who prescribed some medicines; but the symptoms continuing, Dr. Lees was called in on Thursday, the 29th. He at once recognized the case to be one of acute cerebral disease, and advised her removal to Sir Patrick Dun's Hospital. For a day or two subsequently to her admission the disease appeared to run the course of ordinary fever, but after that time the pulse became remarkably slow, some dilatation of the pupils was observed, the surface of the body became extremely sensitive, so that she could not, for example, bear the application of the stethoscope; ptosis of the left eyelid supervened, and the nature of the affection became more decidedly manifest. At six o'clock on the morning of December 15 she grew suddenly worse, and died at nine. On examination of the body much fluid was found in the ventricles of the brain, there was softening of the central portions, and the external surface of this organ, which Dr. Lees laid before the Society, presented the characters of the most intense meningitis.

Dr. Corrigan exhibited the Liver of a girl, aged 15 or 16, presenting a peculiar dark olive-green appearance, and a condition of "stony hardness," without any irregularity on the surface. Some months before her death, the patient, who was a sempstress, and had all the appearance of being much younger than her stated age, had met with an injury, which gave rise to an attack of peritonitis, followed by ascites. Dr. Corrigan referred the condition of the liver just described to the inflammation produced by the previous injury, and considered it to be quite distinct from that which has received the designation of "cirrhosis."

Dr. Hughes brought forward the Liver of a man, aged between 50 and 60, which was extensively affected with carcinoma. The viscus had increased so much in size, that its weight was found to be eleven and a-half pounds.

Dr. Fleming presented the Rectum of a man affected with non-malignant stricture of that organ. The patient had been a horse-shoer, and although labouring under the symptoms of his complaint for the last ten years of his life, had followed his toilsome occupation until shortly before his death, which occurred at the age of 27. During that period he had seldom any fæcal evacuation, but frequently discharged per anum a quantity of muco-purulent fluid. Dr. Fleming compared this case with one of malignant stricture of the rectum described, as I stated in my last letter, by Dr. Henry Kennedy, at the recent meeting of the Association of the College of

Physicians, and, with Dr. Kennedy's permission, laid both morbid specimens together before the Society.

In consequence of the near approach of Christmas, the Society, at its rising, adjourned to the 12th of January, 1856.

The eighteenth annual session of the Dublin Obstetrical Society was opened on the evening of the 18th instant, in one of the public rooms belonging to and adjoining the Dublin Lying-in Hospital, with an address from Dr. Beatty, whose name, with those of Dr. Montgomery and Dr. M'Clintock, had recently been added at a preliminary meeting of the council, to the list of Presidents of the Society. The address consisted of a sketch of the Professional life and practice of his father, the late Dr. John Beatty, who had been an Assistant in the Hospital to the late celebrated Dr. Joseph Clarke, and was subsequently for many years in most extensive practice in the city as an Accoucheur. The late Dr. Beatty kept an accurate record of his private practice, from which it appeared, that in the course of thirty-eight years and five months, he had attended the immense number of 5616 patients in their confinements, of whom but 13, or 1 in 432, died. Dr. Beatty remarked that the two leading points in his father's career had been: reviving the use of the forceps, an instrument which had, antecedently to his time, nearly fallen into disuse in Dublin; and the part he had taken in calling the attention of the Profession in this country to the influence of a constitutional syphilitic taint in destroying fœtal life, and so occasioning the premature expulsion of still-born children, as well as to the proper method of removing the morbid condition on which the death of the fœtus depends, namely, by the administration of mercury to the parent. He had used the forceps in 120 cases, with the loss of two mothers and fourteen children. Many other interesting circumstances were mentioned, and in answer to an inquiry, Dr. Beatty stated that it was his intention to publish the address.

Dr. M'Clintock communicated the particulars of a case, in which the removal of a uterine polypus by ligature was followed by the death of the patient, in consequence of the bursting of a chronic abscess in the pelvis into the peritonæum. The polypus, and the recent preparation of the pelvic viscera, were exhibited to the Society.

A good deal of interest has been excited among the Surgical Profession here, by the exhibition during the past week, at the Royal College of Surgeons, of a new ambulance cart altogether planned by Mr. Tufnell, Regius Professor of Military Surgery; and built by Messrs. Hutton, our celebrated carriage-builders, of Summerhill in this city. It is on the principle of our far-famed "Irish jaunting car," of which it may be said to be a modification. It possesses the great advantages of being easily transported from place to place, of comparative lightness, and of easiness of motion even over the roughest ground. This latter advantage is secured principally by the use of the patent springs, invented by Mr. Corlett, also of this city. These springs consist of a single plate of iron, bent in a half-moon shape, two being used over each wheel; and from the simplicity of their construction, should they be broken through accident, or from being overweighed, the broken portion can be easily replaced. The conveniences of this ambulance are remarkable, considering its size: thus six wounded soldiers can be conveyed sitting erect, and one in the recumbent posture, a shifting bed being arranged in the "well" for this purpose; or three can be conveyed recumbent, and three sitting erect, and all are protected from exposure to wet, by a simple light covering removable at will. Boxes and chests to contain medicines, restoratives, and all the usually requisite surgical necessaries, are arranged in the most complete manner. There is moreover a keg attached beneath the driving seat, to contain a sufficient supply of water. I understand that this invention of Mr. Tufnell's has been highly approved by all military men, including the commander of the forces here, who have examined it, and that Her Majesty has expressed a wish to have it brought to London, as she purposes inspecting it, previously to its being examined at the Horse Guards.

Inoculation for Yellow Fever.—The *New Orleans Delta* states, that the new discovery of inoculation, as a protection against yellow fever, has been tried in 3000 cases in that city, this season, with entire success.

GENERAL CORRESPONDENCE.

TURPENTINE IN YELLOW FEVER.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have only now become aware that Dr. Copland had addressed you on the subject of my communication ("The Use of Turpentine in Yellow Fever") which appeared in your journal of April 14, in consequence of the number containing his letter having been, with several others, long detained at Halifax, N. S., instead of being forwarded to me in the West Indies. Although several months have elapsed since the publication of his letter, in the number of May 12, yet in vindication of myself, and in justice to Dr. Gilbert King, Medical Inspector, R.N., misprinted Dr. Gilmore King, I feel called upon to make a few remarks in reply.

That so justly celebrated a writer as Dr. Copland, and one to whom the Profession owes so much, should have been caused the least unpleasantness by any remarks from so obscure a pen as mine, I am truly sorry; while I am necessitated to disclaim the imputation of having unjustly appropriated for Dr. King what Dr. Copland claims for himself—the credit of first using and recommending small doses of turpentine as the principal treatment in yellow fever.

Dr. King, although he used turpentine in small doses, with signal success during the epidemic yellow fever at Bermuda, in 1843, never did, it is to be regretted, bring his mode of treatment before the Profession; and it was chiefly on that account that I was led to do so in a short article, entitled, "Practical Observations on Yellow Fever and its Treatment with Spirits of Turpentine," which was published elsewhere more than two years ago, soon after my return to England from long foreign service.

The following extract from that article, never originally intended for publication, is the only statement I ever made relative to the point in question; and really, with the most sincere intention not to offer the slightest offence to Dr. Copland, for whom, as a Medical writer and authority, I entertain every deference and respect, I do not see, after a careful examination of those parts of his excellent work referred to in his letter, that I have any reason to change my opinion, which will be found to be expressed as follows:—"To Dr. Gilbert King, who was then in charge of this establishment (a), is justly and entirely due the credit, so far, at least, as I can ascertain, of having first used it (b) in small doses as a regular mode of treatment in bilious remittent fever."

At the time this remark was made, I was not ignorant of the fact, that Dr. Copland had strongly recommended turpentine in fevers and other diseases (but not in small doses from the commencement of fever), and probably, I would have quoted him as an authority in the article mentioned, had his "Dictionary of Practical Medicine" been then by me to refer to.

More than twelve years ago, when I first became acquainted with fatal fevers on this station, I often consulted the first parts of this work, particularly on tropical diseases, with pleasure and profit; but I must candidly confess that, till my attention was called to the subject by Dr. Copland's letter, I had never read his account of yellow fever, under the head of the "Hæmagastric Pestilence." This omission has partly arisen from having, in latter years, made up my mind to study fevers, as they occur in hot climates, at the bedside, rather than be confused, and perhaps prejudiced, among the conflicting accounts of different writers.

But, in respect to the use of turpentine by Dr. King, and the amount of credit to which I consider he is entitled, I have now to observe, that he was first led to use this remedy in small doses as an emunctory in bilious remittent fever (and I have no doubt, should it be necessary, he will answer for himself), on account of the salutary effects it appeared to produce, from its action on the skin and kidneys, in five bad cases of yellow fever, for which he prescribed it, chiefly with the view of restraining passive hæmorrhage; a virtue which the renowned John Hunter knew turpentine possessed above all other styptics, and a Medicine which was even publicly

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(a) Bermuda Hospital. (b) Turpentine.

made known, as having many admirable virtues, by an eminent Physician of Plymouth, as far back as 1679.

It was on account of the remarkable recoveries of these five bad cases of fever; and because turpentine, besides its other properties, proved itself to be an excellent sudorific and diuretic in small doses, without acting as a stimulant; that Dr. King afterwards gave it in doses of 20 drops three times a-day, in every case, and in every stage (but in larger doses when black vomit supervened), of upwards of 800 cases of the epidemic yellow fever, which prevailed at Bermuda in 1843.

It was from personal observation on the same occasion that I made turpentine in small doses my chief remedy, during the epidemic yellow fever, which prevailed on board this ship last year; and it was from further experience of its good effects in this disease, that I again brought it before the Profession, in order to induce others to give it a fair trial, more especially as in the most recent works of Materia Medica, all the properties of this valuable Medicine are not mentioned.

In regard to Dr. Copland's use and recommendation of turpentine in fevers, and more particularly yellow fever, there can be no question that great credit is due to him, and far be it from me ever to seek to deprive him of it; only I am compelled to maintain that, as it is stated in his "Dictionary of Practical Medicine," it does not appear that he ever used this remedy in fever, in the same doses, and with exactly the same object as Dr. King.

It is quite true Dr. Copland states that it is not a stimulant, and that it may even prove more certainly beneficial when given during the stage of excitement; but then it is in doses of two drachms to an ounce, conjoined with other oils, that he recommends it to be given, either by the mouth, or administered in enemata, so as to act freely on the bowels.

Besides the external application of turpentine mixed with olive oil, (a plan which, when I first tried it, I had entirely forgotten had previously been adopted by Dr. Copland,) it is evidently either on the approach of or during the stage of exhaustion, when black vomit, and other passive hæmorrhages, have supervened, that he is most in favour of its internal use, given in combination with capsicum and other stimulants, and in doses of a drachm to half an ounce. In the treatment, however, of ardent tropical fevers, I observe that he recommends half-drachm doses of turpentine every two hours; but then it is also during the latter stage of the disease, when champagne and brandy-and-water are likewise directed to be given. Again, amongst the diuretics and diaphoretics which he enumerates as useful in fevers, turpentine is not included.

With this view of the question, I can only further state that, apart from the disagreeable duty I have felt in replying to Dr. Copland's letter, I am, nevertheless, glad, for the sake of humanity, that he has been again led to give his testimony in favour of this remedy in yellow fever; however much I regret having been the mean of affording him the unpleasantness of which he complains.

If I have not already trespassed too much on your crowded columns, it, perhaps, may not be out of place to inform you that since my return to this station in June last year, I have visited all the chief yellow fever localities throughout the West India Islands; and it is really harrowing to learn everywhere I have been, of the fearful mortality which still attends this disease.

It is frequently very difficult to obtain accurate information on this head, more especially in Spanish places, but the following facts, I have the best authority for believing to be quite correct:—

During the last epidemic yellow fever at Havana, the average mortality among European merchant sailors in the harbour was 1 in 3 of those attacked. In the Spanish squadron employed about Cuba during the prevalence of that pestilence, the mortality was not only much greater, but almost incredible to relate, nearly one-third of the whole naval force, which amounted to about 4000 men, was cut off.

When at Port-au-Prince, three months ago, I ascertained that out of 145 French merchant seamen, who had arrived there in trading vessels since January this year, no less than 50 had died from yellow fever. An English merchant vessel, then in harbour, the "British Banner," and unable to proceed to sea from want of hands, had lost, during the few weeks she had been there taking in cargo, captain, mate, and three men out of ten individuals who formed the ship's company.

When at Manzanilla, on the south-east coast of Cuba, last month, it was told on board, by the manager of a French circus company then performing there, that of the original company, 18 in number, who arrived in Cuba two years before, only 4, including himself, survived; all the others, men and women, having fallen victims to the Vomito Prieto. During the epidemic yellow fever which prevailed at St. Thomas and Santa Cruz this summer, the average mortality among the Danish troops, merchant sailors, and strangers, was about 1 in 4 of those taken ill. Out of 560 Danish troops stationed in those two islands, 80, or a seventh part of the whole force, died.

The turpentine mode of treatment, however good and rational I consider it to be, will, like various other modes pursued in the West Indies, also frequently fail in the cure of yellow fever; nay, cases of this disease will sometimes occur, as I have, I regret to say, experienced, in which turpentine will even fail in its simple and generally speaking certain action on the skin and kidneys. Still I believe, whether it be employed in the primary or latter stages of yellow fever, it will be found more useful than any other individual remedy hitherto employed in this disease. From further experience I have gained of the treatment of tropical fevers during the last few months, I am of opinion that the turpentine mode of treatment, as I practised it during the epidemic fever on board this ship last year, will be found to answer better when assisted by occasional doses of calomel, from three to five grains, given with the view of exciting a depuratory action in the liver; convinced as I cannot help being, of the almost constant complication, although not inflammatory, which this important organ sustains in yellow fever. In a case of this disease, which terminated fatally on board in July last, with black vomit and yellow skin, the liver was found to be friable and fawn-coloured; and bile was readily detected in the urine, and in serum effused within the cranium. In 40 post-mortem examinations of cases of yellow fever, which I have made during the course of my experience on this station, no less than 34 cases of this number exhibited the liver either more or less fawn-coloured, and friable or congested, and otherwise abnormal.

The yellowness of the skin in this disease, no doubt depends in a great measure on the capillary effusion of destroyed blood, like what results from a contusion; but the bile, I believe, also materially assists in producing the jaundiced appearance.

In the treatment of tropical fevers, that very valuable remedy, quinine, still deserves much attention; for, however extensively used as it now is, both as a prophylactic and a remedy, the period of fever when, and the doses in which, it should be given, have not yet been satisfactorily settled. But until the phenomena of febrile action are thoroughly understood, all modes of treatment must, to a certain extent, be vague and uncertain. From the rapid advances, however, which have recently been made in Medical Science, more especially in Animal Chemistry, as connected with Pathology, so ably shown in the admirable lectures on Pyrexia, by Dr. Parkes; it is to be hoped that the day is not far distant, when what is now, as this author observes, "a chaos of uncertainty and contradictory assertions," will assume the form and basis of indisputable truth.

I am, etc.,

H.M.S. "Medea," James Laird, Surgeon, R.N.

Port Royal, Jamaica, Oct. 26, 1855.

RETROVERTED GRAVID UTERUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—A case of retroverted gravid uterus having occurred in my practice within these few days, bearing, in many respects, resemblance to the cases reported in your journal by Dr. Ramsbotham, and having yielded to his plan of treatment, I have enclosed you some rough notes of the case, which you may insert if you think proper.

I am, etc. G. Cheesman, M.R.C.S. & L.A.C.

17, Oxford-st., Southampton, Dec. 4, 1855.

On the 30th November, ult., I was called upon to attend a patient of the name of Caroline Downing, a married woman,

residing at No. 5, Albert-terrace, in this town. On my visiting her, she complained of severe bearing-down pains at the lower part of her abdomen, just above the pubes, extending round the hips to her loins, resembling, as she stated, those of labour; in fact, she thought she was going to miscarry, as she was between three and four months pregnant. Her tongue was clean, her pulse 72, the bowels confined, and she had a continual desire to make water, which was accomplished only in small quantities, accompanied by great pain. On examining the parietes of the abdomen, I observed an enormous tumour rising considerably above the umbilicus, which gave her the appearance of a woman very far advanced in pregnancy, and, from the character of her pains, I really thought she must be in labour. On making further inquiries into her case, she told me, that ten days ago, as she was cleaning her windows, she very nearly fell backwards into the street, and, in the effort of regaining her position, she found something suddenly give way in her abdomen, which was immediately followed by a severe bearing-down pain over the pubes, this being succeeded throughout the night by a constant dribbling away of her urine. The two following days she could void no urine, and her abdomen gradually acquired the appearance which it presented when I saw her. It was with difficulty that I could get her to submit to a vaginal examination. In passing my forefinger into the vagina, I found a hardish tumour filling up the hollow of the sacrum, descending as low down as the posterior-commissure of the vulva, and obstructing the vaginal passage so much, that I could not reach the os uteri above the brim of the pelvis. I requested the patient to keep her bed and to lie on her back. To take a dose of castor-oil, and the following draught every four hours, viz.: Tr. Opii ♏ xii., mist. camph. ℥j.

December 1.—The symptoms not relieved. She has passed about a pint of water altogether since yesterday, but in small quantities. Would not submit to another vaginal examination. The bowels have not been relieved. To have some more castor-oil, and to discontinue the draughts.

2.—Having since my visit to the patient yesterday read a "Case of Spontaneous Restoration of the Retroverted Gravid Uterus," in the *Medical Times and Gazette*, by Dr. Francis H. Ramsbotham, I have been induced to follow out his plan of treatment, and therefore introduced the catheter, and drew off the incredible quantity of 150 ounces of reddish-coloured urine. On afterwards making a vaginal examination, I found, to my surprise, that the tumour had risen to the brim of the pelvis. The patient was ordered to keep her bed, and to make water while kneeling.

3.—Made another vaginal examination, and found the os uteri at its usual situation. About ten minutes before my visit she made a pint of urine, and I passed the catheter, and drew off about 24 ounces more clear fluid.

4.—The patient is going on favorably. The uterus still retains its proper situation.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

January 1, 1856.

ANNUAL MEETING.

Mr. Arnott, President, in the Chair.

This being the Annual General Meeting, the business was commenced by the reading of the

TENTH ANNUAL REPORT.

After congratulating the members upon the prosperous condition of the Society during the past session, the Report stated, "not only has the character of the meetings been fully maintained, but the number of new members joining the Society has been larger than in any former year, and the demand for the transactions, both in this country, on the Continent, and in America, has increased in like proportion. Several volumes of the transactions are out of print, and the stock in hand, even of the more recent ones, is so inadequate to meet the requirements of those who wish to purchase, that the Council has gladly availed itself of an offer from its printer, to re-issue the whole series at his own expense and risk, on terms which were communicated to the members some time ago. Gentlemen wishing to subscribe will, therefore, be good enough to communicate their desire to the secretaries, at as early a date as possible, as no progress can be made in the re-issue, until a certain number of names has been received." "During the past session, thirty-nine gentlemen have joined the Society, and twelve have been lost to it by death, resignation, or other causes, so that the names of 245 members are now borne on its books."

"The total amount of the funds at the close of the Session was £298 6s., and the expenditure has been £290 6s. 2d.; leaving a balance of £7 19s. 10d. in the hands of the Treasurer. In addition to this sum, £23 2s. is yet due from members, and will be carried to the credit of the next year's receipts."

The Report then went on to allude to the large and yearly-increasing cost of the annual Volume, stating that, if it were to be maintained in its present state of excellence, a yet further increase in the Society's income would be needed. With the latter end in view, the members were invited to zeal, in making its objects widely known, and in endeavouring to add new names to its list of labourers in the field of pathology. The Report concluded by proposing slight alterations in several of the laws, chiefly with reference to financial matters.

Votes of thanks having been put, and carried by acclamation, to the Retiring Officers of the year, the following gentlemen were elected by ballot as the Society's staff for the ensuing Session:—*President*—James Moncreiff Arnott, Esq., F.R.S. *Vice-Presidents*—Thomas B. Peacock, M.D.; H. Bence Jones, M.D., F.R.S.; William John Little, M.D.; James R. Bennett, M.D.; William Fergusson, Esq., F.R.S.; Prescott G. Hewett, Esq.; John Simon, Esq., F.R.S.; Edward Cock, Esq. *Treasurer* — Alexander Shaw, Esq. *Council* — E. H. Sieveking, M.D.; William Baly, M.D., F.R.S.; J. S. Bristowe, M.D.; J. W. Ogle, M.D.; Samuel O. Habershon, M.D.; Francis Sibson, M.D.; James Dixon, Esq.; George Pollock, Esq.; Henry Gray, Esq., F.R.S.; William Bowman, Esq., F.R.S.; Henry Haynes Walton, Esq.; Henry Obré, Esq.; W. A. Hillman, Esq.; Jonathan Hutchinson, Esq. *Honorary Secretaries*—Richard Quain, M.D.; Mitchell Henry, Esq.

The suggested alterations in the rules having been proposed and discussed by the Meeting, they were, with one exception, adopted.

The Society then passed to the ordinary business of the evening.

Mr. Ballard exhibited specimens taken from a case of

ACUTE EMPYEMA.

An infant, aged 20 months, had died after three weeks' symptoms of acute pleurisy The right pleura was found after death distended with pus. The lung, which was the specimen shown, was compressed and carnified, its serous investment being acutely inflamed. The disease was uncomplicated.

Mr. G. Berlase Childs showed an example of

FIBRO-CYSTIC DISEASE OF THE FEMUR.

A young woman, in pretty good health, aged 23, had submitted to amputation under his care, in the Metropolitan Free Hospital, on account of great enlargement of the lower fifth of the left femur. The disease had been slowly progressing for nearly three years, had not caused much pain, nor materially interfered with health. It principally affected the condyles of the bone, which, enlarged and nodular, overhung the knee, causing a rounded tumour, which, at first sight, much resembled joint disease. The joint itself, however, was not affected. After amputation, the specimen showed a perfect example of that rare disease, fibro-cystic tumour in bone. Some of the cysts were large enough to contain an egg. The bone was expanded as a thin shell around the mass. A microscopic examination had been made by Mr. Hutchinson, who reported that the solid intercystic material consisted only of fibrous and fibroid tissue with decolorized blood-clot in various stages of organization. No cells resembling those of cancerous or myeloid tumours had been discovered.

The condition of the specimen, while recent, was shown by a very excellent coloured drawing by Mr. Tuffen West.

Mr. Prescott Hewett was inclined to believe that fibro-

cystic disease in bone tissue was not quite so rare as had been supposed. Several specimens had been exhibited to the Society in previous sessions, and he believed that many might be found in the different Museums classed as "cancer." It was not a malignant disease, and he was acquainted with the details of several cases in which, after amputation, the patients had lived for indefinite periods, and had never had any reappearance of it. He adverted to the excellence of the drawing shown, which would, he said, have enabled him at once to recognize the disease, and to state positively that it was not cancer. As great interest attached to the class, he would propose that a further examination of the specimen should be made. Mr. Henry Gray was accordingly appointed for that purpose.

Mr. Hutchinson showed drawings, and a preparation from a case of

PULSATING ERECTILE TUMOUR IN THE CHEEK.

The patient, a child aged 20 months, had been under his care in the Metropolitan Free Hospital. At birth, a small swelling had been noticed beneath the right lower eyelid, which had since increased so as to constitute a great deformity. The child had been under treatment at different Hospitals all its life, and pressure and other means had been tried without benefit. It possessed a feeble pulsation, and felt like a subcutaneous nævus, from which, however, it differed, in that pressure was not efficient to empty it beyond a certain point. Having reflected up the integument which covered it, Mr. Hutchinson had succeeded, by first ligaturing all points where vessels entered, in removing the whole without material loss of blood. The wound had healed well. The pathological importance of the specimen consisted in the circumstance that it was composed of three distinct elements: —1. Dilated veins and capillaries as of a nævus; 2, true erectile tissue; and, 3, lobules of fibro-fatty tissue. The last mentioned were of considerable size, and accounted for the fact that the tumour had only been susceptible of very partial collapse under pressure; they would also have prevented the success of any measure of treatment other than that by complete excision.

Dr. Van der Byl next brought before the Society a specimen of

ANEURISM OF THE BASILAR ARTERY.

A woman, aged 53, had died in an apoplectic fit. Four or five years before, she had suddenly become permanently deaf. There was the history of an attack of apoplexy two years ago, which had been followed by paralysis of the left side, from which she slowly recovered. At the autopsy, much extravasated blood was found about the basilar artery; and on its right side, in the middle of its course, was a ruptured aneurismal sac, about the size of a hazel-nut. The lateral ventricles were much dilated, and contained serum. Dr. Van der Byl could not account for the phenomenon of deafness by any supposition that the tumour had pressed upon the auditory nerve, but was inclined to think that it might have interfered with the vessels supplying the ear with blood. He remarked upon the great rarity of the specimen.

Dr. Van der Byl also showed a preparation of

LARGE ANEURISM OF THE POSTERIOR CEREBRAL ARTERY.

A man of middle age had died soon after a sudden apopleptic seizure. It was afterwards ascertained that he had long been liable to gout, and that for about two months past he had suffered much from vertigo, and pain in the head. At the autopsy, about an ounce of bloody serum was found in the right lateral ventricle. In its descending cornu, apparently attached to the hippocampus major, was an elastic tumour, nearly the size of an egg. This tumour, on further examination, was found to have a cavity communicating with that of the posterior cerebral artery, and the coats of that vessel could be easily traced into it. Its interior was almost filled by firm laminated coagula of blood, and over its surface also was a thin layer of the same. The latter had, no doubt, resulted from some bygone extravasation, although it was curious that there was no history of a fit having ever occurred prior to the fatal one. The brain substance around the tumour was somewhat softened by pressure. The specimen was believed to be unique.

EPIDEMIOLOGICAL SOCIETY.

Monday, January 7, 1856.

Dr. Babington, President, in the Chair.

Mr. Tucker read a paper with reference to the effects of the mineral and vegetable acids in regard to cholera, in continuation of a paper read by him last year on the same subject. The author referred more especially to the vegetable acids, as prophylactic of cholera, and produced a considerable amount of testimony from the cider districts to prove their exemption from that disease. He extolled cider as a most wholesome beverage, and exhibited a specimen of vinegar made from cider, of which he said he was in the constant habit of partaking, and which he recommended for general family use.

The President said that the cider-vinegar exhibited by Mr. Tucker was exceedingly pleasant, from the aroma that was with it, and probably a little ether.

Mr. Nunn referred to the use of acetic acid in scarlet fever, and said he had seen great advantages from the use of drachm doses in cases of obstinate headache.

Hr. Hunt said that Mr. Tucker had proved the utility of sulphuric acid in diarrhœa, but had not shown that it would prevent diarrhœa from passing into cholera, for he could not say beforehand that any case of diarrhœa would have passed into cholera without such treatment. With regard to the prophylaxis of cider he had produced more evidence, which, if not of itself conclusive, would justify the Medical man in allowing any of his patients who might crave for cider under cholera, to drink it plentifully. In 1832-3, when the cholera first appeared, it was the general opinion that acids were extremely dangerous. That opinion was now much altered, so that few would forbid in cholera times the drinking of acid drinks, or even the eating of wholesome acid fruits, if ripe. A person would be less likely to have an attack of cholera by taking the food suggested by his instinct as palatable and pleasant, than by keeping to a rigid diet. Acids were provided for us in rich abundance; we all had a taste for them, and should probably suffer by abstaining from their use. He believed cider to be a more wholesome beverage than malt liquor.

Dr. Richardson said that Leicestershire and Rutland, though not cider counties, were very nearly exempt from cholera. With reference to malic acid, he wondered that it had never been applied to the same purposes as citric and tartaric acids. It existed largely in rhubarb and other vegetables, and might be procured at a cheap rate. He believed there was very little physiological difference between the various vegetable acids.

Dr. Carlill said that the Profession was greatly indebted to Mr. Tucker for the facts which he had brought before them, and which would no doubt stimulate further inquiry upon the subject. There was no *à priori* improbability in the prophylaxis of cholera by the vegetable acids. The facts known as to the value of lemon-juice in scurvy and rheumatism tended to show the importance of certain vegetable acids in modifying the blood. The question of mineral acids, however, was totally different.

The President said that he should hesitate to class the vegetable acids together as Dr. Richardson had done; and he should not take a dose of oxalic acid (which he believed was found in rhubarb) with the same confidence as a dose of malic or citric acid.

Dr. Richardson believed that the difference between the acids was not so great as had been supposed. Oxalic acid, when given to a dog, was not more poisonous than citric or tartaric acid. If full doses were given, the effects were much the same with all. Four drachms was the smallest dose known to produce death; and he had known six drachms given without producing death.

Dr. M'William said that the effect of lemon-juice and crystallized citric acid upon rheumatism was very variable; but in scurvy these agents never failed; so that in the Navy, where they were used, the disease had not been known for the last century.

Dr. Headland said that that fact had some bearing on the theory of Dr. Garrod as to the effect of the alkalies in lemon juice.

The President said that there was not half a grain of alkali in an ounce of lemon juice; and he thought the amount could produce but little effect.

Dr. Odling said that in the ash of lemon juice there were 20 parts of potash to 1 part of soda. It was true that soda and potash acted very much alike as alkalies, but phosphorus and arsenic were much alike, chemically speaking,—they were iso-morphous,—yet the action of phosphorus and phosphates were not analogous to that of arsenic and arseniates. Potash had a tendency to form an acid, and soda an alkaline phosphate. With regard to malic acid, he had prepared some quantity from rhubarb, but it could not be obtained in nearly such large quantities as citric or tartaric acid. As to oxalic acid, it appeared to approximate nearest to a mineral acid. Moreover it was a simple acid, while citric and tartaric acid were complex; it was volatile, while the others were fixed. He had found a fair proportion of sugar in the vinegar exhibited by the author, though he had previously believed that acetic fermentation would not have begun until the saccharine fermentation had entirely ceased.

Dr. Camps suggested that the exemption from cholera in some of the districts mentioned by the author was due to elevation.

The author having replied, the Society adjourned.

The Royal Panopticon, Leicester Square.—This establishment offers a variety of entertaining and useful features. It contains an excellent laboratory fitted up in the style first adopted by Liebig at Giessen, and followed in the Royal College of Chemistry and other places where chemistry is practically taught. Besides the instruction in the laboratory, public lectures are delivered on chemistry by Mr. G. F. Ansell, and on different branches of Natural Philosophy by Mr. Partington. An excellent lecture is also delivered on Natural Magic, in which the mechanical and chemical and electrical phenomena exhibited by modern wizards are scientifically explained. The chromatic and luminous fountains which are exhibited twice a-day, are exceedingly beautiful in themselves, and illustrate very curiously some of the laws of hydraulics, optics, and chemistry.

Mortality Notabilia.—The deaths of 1247 persons, namely 630 males and 617 females, were registered in London in the week that ended on Saturday. Taking the first week in each of the last ten years (1846-55), it is found that the average number of deaths then registered was 1311, which, if raised in proportion to increase of population, for comparison with the present return, becomes 1442. The public health, therefore, may be stated to be better than it usually is at the commencement of the year. In the first week of 1854, and also in that of 1855, the deaths rose above 1400. The milder character of the weather, indicated by a rise of 14°, has been attended with marked effect in the reduction of the mortality. Deaths arising from pulmonary diseases, in which class bronchitis, pneumonia, and asthma form the principal heads, numbered consecutively 267, 293, and 348 in three previous weeks; last week they declined to 253. Bronchitis, which was fatal in the previous week in 204 cases, fell to 141. Hooping-cough is very prevalent in the St. Paul sub-district, in St George-in-the-East. That it is also fatal appears from the fact that out of 17 deaths registered in the week, 6 were those of young children caused by hooping-cough. The total number from this disease in the Metropolis was 49, not so great as in the previous week.

Births.—The births of 853 boys and 809 girls, in all 1662 children, were registered; average 1579.

Meterology.—The mean height of the barometer in the week was 29·682 in. The highest reading was 30·20 in. on Sunday (the 30th). The mean temperature of the week was 42·2°, which is higher by 6° than the average of the same week in 38 years (as determined by Mr. Glaisher). The mean daily temperature was above the average throughout the week, and on the last four days this excess was from 6° to 9°. The highest temperature occurred on Sunday, and was 49°; the lowest, which occurred on Tuesday, was 33°. The mean dew-point temperature was 40°, and the difference between this and the mean air temperature was 2·2°. The mean temperature of the water of the Thames was 41·6°. Wind south. Rain 0·19 in. Horizontal movement of air, 385 miles; electricity positive, with variable tension.

PRINCIPAL LONDON WATER COMPANIES' SUPPLY IN 1853 AND 1855.

Company.	Source of Supply. 30th Sept. 1853.	Source of Supply. 30th Sept. 1855.	Number of Houses supplied. 30th Sept. 1853.	Number of Houses supplied. 30th Sept. 1855.	Quantity of Water supplied daily. 1853.	Quantity of Water supplied daily. 1855.	Process of Filtration. 30th Sept. 1853.	Process of Filtration. 30th Sept. 1855.
1. West Middlesex ..	Thames at Barnes, Surrey; about 14 mile westward of Hammersmith-br.	Thames at Hampton, Middlesex; about 6 miles above Teddington Lock and 15 miles above former source at Barnes.	(a) 24,806	(a) 27,333	Gallons. 5,056,560	Gallons. 6,192,072	No filtration; depuration by subsidence in two large reservoirs at Barnes.	After depuration by subsidence as before, the water passes through filter beds of 4½ acres in area, composed of layers of gravel and fine clean river sand.
2. Grand Junction ..	The Thames between Kew Bridge and Richmond.	The Thames above Hampton, ¼ mile above Hampton Village, 1¼ mile above Monkey Lock, 6 miles above Teddington Lock, 26 miles above London Bridge.	16,417	17,069	5,144,319	5,926,512	Through a filtering medium composed of layers of washed shingle of various sizes and sharp sand.	Same as in 1853, but 1 to 2 feet have been added to the portion of medium consisting of sharp sand, and 150,000 superficial feet to the area of the filtering beds. Three additional reservoirs of deposit and subsidence have likewise been added.
3. New River.....	Chadwell Spring, River Lee, and several wells.	Chadwell Spring, River Lee, and several wells.	93,714	96,746	17,537,396	24,928,000	—	The works contemplated in the Company's Act of 1852 are nearly completed, and will be in operation by the time specified therein.
4. East London	River Lee at Lee Bridge Mills.	River Lee, near Chingford, Essex.	62,531	67,215	13,402,972	16,821,000	—	The process of filtration carried ont by this Company on the 30th Sept., 1855, was through an extensive surface of sand. The Metropolis Water Act of 1852 did not require that this process should be put into operation previously to 31st December, 1855.
5. Southwark and Vauxhall.	Thames at Battersea.	Thames at Hampton, ¼ mile above Hampton Village, 1¼ mile above Monkey Lock, 6 miles above Teddington Lock, 26 miles above London Bridge.	39,346	41,529	7,287,289	8,857,693	Through a filtering medium composed of layers of washed shingle of various sizes and sharp sand.	Same as in 1853, but 1 to 2 feet have been added to the portion of medium consisting of sharp sand, and 66,000 superficial feet to the area of the filtering beds. Two additional reservoirs of deposit and subsidence have likewise been added.
6. Chelsea	Thames at Chelsea.	(The Company is about to abandon the present source of supply at Chelsea, and adopt another, as required by Act.)	—	—	—	—	—	—

(a) The number of houses supplied includes 620 houses in 1853 and 1937 in 1855 supplied for the Hampstead Company.

MEDICAL NEWS.

DEATHS.

SMITH.—On the 7th instant, John Smith, Esq., M.R.C.S.E. 1827 and L.S.A. 1826, at his residence, 8, Artillery-place, Finsbury-square, after a short and severe attack of typhus fever, aged 53. Mr. Smith held the appointment of Surgeon to the London Fire Engine Establishment for twenty-five years, and was one of the out-door Medical officers to the poor of St. Luke's parish, by whom he was greatly beloved. He was also one of the Surgeons to the City of London and East London Dispensary, and was lately elected examining Surgeon to the Houseless Poor. He was a member of the Hunterian Society and Senior Physical Society, Guy's Hospital.

WILLIAMS.—Recently at Aberystwyth, Richard Williams, Esq. The deceased gentleman held a position of great eminence in the county, and his loss will be deeply felt by a very large circle. Much sympathy has been evinced by the surrounding resident nobility and gentry; and more especially the indigent poor will lament his decease, to whose necessities and distresses he was ever ready to respond. Mr. Williams was the originator of the Aberystwyth Infirmary and the Cardiganshire General Hospital, and also the Medical Attendant upon the inmates of the Aberystwyth House of Correction. He had a large practice among the nobility and the leading clergy and gentry of Aberystwyth and the surrounding district; and was a Magistrate for the county, and Coroner for the upper district. He died in his 59th year, after a short illness, brought on by exposure to all weathers in the discharge of his duties. The *Carnarvon Herald* expresses the hope, "that the Infirmary will be carried on as a monument to his memory." L.S.A. 1819; Physician to the Aberystwyth Infirmary; Hon. Member to the Physical Society of Guy's Hospital. Author of "An Analysis of the Medicinal Waters of Llandridnee." 1817.

APPOINTMENTS.

MORPETH.—Mr. Matthew Brumell, Surgeon, Morpeth, has been appointed Surgeon to the County Gaol, vacant by the death of Mr. Robert Hawdon.

LANKESTER.—Dr. Lankester has been elected Medical Officer of Health to the Vestry of St. James's, Westminster.

WILLIAMS.—On Tuesday, the 8th inst., Dr. Philip H. Williams was unanimously elected Physician to the Worcester Infirmary.

THE WILLS of Colin Rogers, M.D., Dorset-square, and William Day, Esq., Surgeon, of Isleworth, have been proved under £20,000 and £14,000 respectively.

LICHFIELD DISPENSARY.—We regret to find that this Institution will be a sufferer by the failure of the bank of Messrs. Palmer and Meene, Lichfield.

EAST INDIA COMPANY'S SERVICE.—The first examination for Assistant-Surgeoncies will take place at the East India House, on Monday morning, the 14th inst., at ten o'clock.

SEBASTOPOL, Dec. 22.—LEAVE OF ABSENCE has been granted to Deputy-Inspector-General of Hospitals Humfrey, and Staff-Assistant-Surgeon Stranaghan, to proceed to England.

DR. BELL, of Aberystwith, is a candidate for Coroner of the Upper District of Cardiganshire, vacant by the decease of Mr. Richard Williams.

ADDENBROOKE'S HOSPITAL.—Dr. Whewell has given £100 to this Institution, and J. Hibbert, jun., Esq., Fellow of King's College, Cambridge, £50.

DRIFFIELD DISPENSARY, YORKSHIRE.—An Institution under this name has been set on foot, and the following Medical Officers appointed:—Washington Harrison, Esq., Richard Woed, Esq., A. Scotchburn, Esq., and John Fortune, Esq.

THE CASE OF MRS. WOOLER.—The auditors of the county of Durham, in presenting the accounts the other day, mentioned that the late prosecution in the Great Burdon poisoning case had cost the county no less than £512.

ROYAL ORTHOPÆDIC HOSPITAL.—In consequence of the expiration of the lease of the premises of this valuable institution, in Bloomsbury-square, and the almost ceaseless applications for admission, an eligible building, highly adapted for this purpose, and which will accommodate a larger number of patients, in Oxford-street, near Harewood-place, has been secured. Since the establishment of the present Hospital, no less than 18,000 patients have been admitted more or less afflicted with clubfoot, spinal and other contractions and deformities, the fresh admissions being annually about 1600. Upwards of 200 are now waiting for admission, who are deprived of the benefits of the institution as much from the want of space in the present premises as the inadequacy of the funds. It is necessary that the amount in payment for the new Hospital should be provided in a few days; but it is to be lamented that at present, notwithstanding the liberality of the public, several hundreds more are required. It is anticipated that the institution will not be permitted to contract its sphere of usefulness, and that consequently the requisite funds will speedily be subscribed. Applicants are constantly received from most of the large towns in the United Kingdom, as well as from the Metropolis.

CITY COMMISSION OF SEWERS.—At a Court, held on Tuesday, Dr. Letheby, the Medical Officer of Health of the City of London, presented the following report:—"Tuesday, January 8, 1856.—Gentlemen,—The inspectors' returns, which are now before you, relate to 164 houses which have been visited since the last meeting of your Honourable Court, and I beg to submit a list of places requiring your orders for their improvement in various particulars. I have also the honour to subjoin the tables of mortality for the City of London for the two weeks ending December 22 and December 29, and I likewise place before you the mortality returns for the quarter which has just passed. From these returns, you will perceive that the total number of deaths in the City of London, during the months of October, November, and December, have been 733, to which is to be added the return, which I have not yet received, for the last week of the year, for one of the sub-districts of the East London Union; this will increase the number to about 750. On looking over the table for the corresponding quarter of last year, I find the number of deaths amounted to 939, so that the mortality has been about 25 per cent. less than that of the autumn of last year. The average number of deaths for this quarter during the last seven years has been 775·6. Our mortality, therefore, is much below the average. Of these 733 deaths, 295 have occurred in the district of the East London Union, 190 in that of the West London Union, and 248 in that of the City of London Union. Having regard, therefore, to the number of the population, the mortality has been greatest in the eastern division of the City. Again, it is right to mention that more than one-third of the deaths have occurred among children under five years of age, the principal causes of death being convulsions, pneumonia, scarlet fever, and measles. In concluding my report for the last quarter, I must not omit to state that through your influence the last of the City graveyards has been permanently closed. (Applause.) This is matter for congratulation, for at the commencement of the year 1853 there were sixty-five burial grounds in the City of London. These, together with the vaults of the attached churches, received nearly a thousand corpses annually; but now, at the close of the year 1855, I have the satisfaction to inform you that all of these churchyards are permanently closed. You have, therefore, relieved the City from one of the most prolific sources of pestilential disease.—I have, etc. HY. LETHEBY, M.B., Professor of Chemistry and Toxicology in the College of the London Hospital."—The Court expressed much gratification after hearing the report read.

MONUMENT TO THE LATE DR. THOMSON.—According to the *Inverness Courier* the amount subscribed for the above purpose is already about £160.

HEALTH OF THE ARMY IN THE CRIMEA.—Under date Sebastopol, Dec. 25, 1855, General Codrington reports that, notwithstanding the recent severe weather, the thermometer a few nights ago having fallen to nearly zero, the general state of health of the army has continued good.

PROFESSOR T. GEOFFROY ST. HILAIRE has been elected Vice-President of the Academy of Sciences, and, therefore, according to the rule, he will be the President for the year 1857.

PRIZE DISSERTATION ON CHOLERA. We are requested to state, that a prize of 100 Ducats in Gold (£50) has been announced by I. G. Calve in Prague, for the best examination of a series of propositions upon all the essential points of the cholera epidemic, such propositions being taken from the treatise entitled, "Versuch einer neuen empirischen Begründung der Cholerawissenschaft 8vo. Prag. 1844." The dissertations may be written in English, German, French, or Italian, before July 31, 1856. A list of the propositions and other particulars, may be seen at Mr. Churchill's, New Burlington Street.

PROFESSOR BUSSY, a distinguished chemist, has been elected President of the Academy of Medicine.

METROPOLITAN MANAGEMENT ACT.—The Committee appointed by the Marylebone Vestry to consider the best mode of attaining the ends contemplated by the legislature in directing the appointment of officers of health under the new act, have reported against complying with the memorial of the district Medical officers of the parish, that they should be jointly appointed to perform the duties of Medical officers of health, considering it necessary for the due carrying out of the office that the responsibility should not be divided among so many persons; besides, that the importance and character of the office would be much diminished by such a step as that of making it an adjunct to any other appointment, especially one over which the vestry has no direct control. It is, however, quite open to all or any of the memorialists to come forward for the office, and place their claims in competition with those of other candidates. The Committee have further to recommend that but one Medical officer of health shall be appointed for the entire parish, at a salary of not less than £300, nor more than £500, per annum.

THE FRENCH GOVERNMENT has just published a new law regulating the *concours*, for the places of supplementary Professors in the Faculties of Medicine, Sciences, Letters, Law, and in the Schools of Pharmacy The new organization is such, that every one in Paris considers that the *concours* is in reality abolished, although nominally existing.

DINNER AND TESTMONIAL TO JOSEPH BARNARD DAVIS, ESQ., SURGEON, SHELTON. The members of the North Staffordshire Medical Book Society having expressed a desire of testifying their obligations to J. B. Davis, Esq., the Honorary Secretary to the Society, for the efficient services he had rendered to the Society during the period of six years which he had held that office, the Committee met some weeks ago, to take the subject into consideration, and decided to present that gentleman with a silver ink-tray, bearing an appropriate inscription, and invite him to a dinner on the day of presentation. Dr. Goddard, of Longton, was requested to undertake the office of Treasurer and Secretary, and to carry out their views, which duties he kindly undertook, and has discharged them to the great satisfaction of all concerned. The dinner was announced by advertisement, and open to all the members of the Profession. It took place at the Railway Hotel, Stoke-upon-Trent, on Wednesday, the 26th ultimo; Dr. Wilson was in the chair; Joseph Walker, Esq., of Burslem, occupied the vice-chair. The ink-tray, which is very chaste, has been much admired. The following is the inscription:—"Presented to J. B. Davis, Esq., by the members of the North Staffordshire Medical Book Society, as an acknowledgment of his valuable services as their Honorary Secretary.—December 26, 1855." After the removal of the cloth, the usual loyal and patriotic toasts, as well as several of a more local character, were given.

MUNIFICENT DONATIONS TO THE QUEEN'S HOSPITAL AT BIRMINGHAM.—An unknown benefactor having offered, through the Rev. James Thomas Law, Chancellor of the Diocese of Lichfield, the noble donation of £1000, towards the promotion of a Permanent Benevolent Fund, the interest to be devoted towards the expenditure connected with cases of accident and acute disease brought at all hours to the Hospital, from the Town and Midland Counties, without a subscriber's note, a friend, under the signature of Delta, has paid over the same noble sum per Mr. Sands Cox. Lords Lyttelton, Ward, and Leigh, have accepted the office of Trustees, and a deed declaring the trust is to be enrolled in Chancery forthwith, in triplicate: one to be held by the Trustees, one by the Treasurer of the Hospital, and the third to be placed in the hands of the Commissioners of Charities.

DR. OLIFFE has been nominated Officier de la Légion d'Honneur.

ST. JOHN'S WOOD AND PORTLAND-TOWN PROVIDENT DISPENSARY.—The annual general meeting of the friends and subscribers to this valuable charity was held on Tuesday at the Dispensary, No. 1, Hanstridge-villas, Portland-Town. The Rev. H. W. Maddock, M.A., presided. The report said that, in adverting to their financial position, the Committee could not avoid expressing their deep regret that the charity is still burdened with the heavy debt contracted more than two years ago in the purchase of the Dispensary, and also that the funds derived from subscriptions are inadequate to meet its widening field of usefulness, and they earnestly ask for renewed support to enable them to continue and extend its labours, which are highly prized by the poor who benefit by them. The statement of accounts showed a balance against the charity of £300.

THE CHOLERA IN THE AUSTRIAN STATES IN 1854.—The *Wien Wochenschrift* publishes the following official statement of the ravages committed by this fearful scourge to the date Nov. 15, 1854, adding that in several localities the epidemic continuing to increase, the present large numbers will have to be still augmented:—

	Cases.	Recovered.	Deaths.	Remain.
Lower Austria	27,916	17,207	10,259	450
Upper Austria	2181	1225	917	39
Bohemia	15,267	8511	6705	51
Moravia	39,962	23,338	14,842	1782
Silesia	4379	2579	1774	26
West Galicia	37,117	20,161	14,672	2284
East Galicia	38,384	15,625	15,981	6778
Bukowina	745	468	271	6
Carinthia	807	562	223	22
Craniola	19,376	13,498	5748	130
Tyrol	15,180	8521	6247	412
Maritime and Trieste	37,000	23,636	13,123	241
Dalmatia	10,577	6359	3982	236
Lombardy	64,456	24,778	34,114	5564
Venetian States	70,915	29,406	34,663	6846
Croatia and Dalmatia	6652	4152	1963	537
Woiwodina	9177	4706	4422	49
Siebenbürgen	927	511	380	36
Hungary	148,081	82,797	60,575	4709

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, January 5, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, January 5, 1856. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	42·2						38·3
ALL CAUSES	1247	554	183	215	245	50	1311·3
SPECIFIED CAUSES	1247	554	183	215	245	50	1305·4
DISEASES:—							
1. Zymotic Class	219	163	24	19	13	..	269·0
2. Dropsy, Cancer, and others of uncertain seat	67	11	13	23	17	3	53·0
3. Tubercular Class	159	67	56	30	6	..	190·1
4. Of Brain, Nerves, etc.	137	60	11	24	38	4	147·2
5. Of Heart, etc.	58	6	10	18	22	2	52·5
6 Of Respiratory Organs	253	106	14	57	63	13	274·2
7. Of Digestive Organs	66	31	9	15	11	..	67·8
8. Of Kidneys, etc.	21	..	3	8	10	..	11·9
9. Of Uterus; viz. — Puerperal disease, etc.	10	1	8	1	..	..	8·9
10. Of Joints, Bones; viz.— Rheumatism, etc.	18	4	8	3	3	..	9·5
11. Of Skin, etc.	4	2	..	2	..	..	2·9
12. Malformations	3	3	..	..	..	..	3·5
13. Debility from Premature Birth, etc.	36	36	..	..	..	..	33·0
14. Atrophy	35	24	..	..	11	..	25·0
15. Age	63	..	..	..	37	26	61·9
16 Sudden	17	7	2	3	4	1	21·2
17 Violence, Privation, etc.	81	33	25	12	10	1	73·8
CAUSES NOT SPECIFIED	..	..	..	..	..	..	5·9

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	7	2	6	..	3
North	490,396	3	6	6	10	1	10
Central ..	393,256	2	7	4	8	2	12
East.....	485,522	..	6	11	13	1	14
South	616,635	6	5	12	12	5	8
Total..	2,362,236	11	31	35	49	9	47

BOOKS RECEIVED.

Half-Yearly Abstract of the Medical Sciences. Vol. XXII. July to December. 1855.

The British and Foreign Medico-Chirurgical Review. No. XXXIII. January. 1856.

Copies of Correspondence in the Case of the Medical Officers lately dismissed by "Sealed Order" from the Cork Dispensary. Cork : F. Jackson. 1855.

Dr. Bartlett on Consumption. London : Baillière. 1855.

On Unsoundness of Mind. By J. W. Hume Williams, M.D. London : Churchill. 1856.

London and Provincial Medical Directory. 1856. London : Churchill.

A Treatise on Electricity. By De la Rive. Translated for the Author. By Charles V. Walker, F.R.S. In Three Volumes. Vol. II. London : Longman and Co. 1856.

TO CORRESPONDENTS.

Senex, in reference to the treatment of Lepra Vulgaris, recommends the sufferer to undergo Vaccination. "Senex" also thinks that Small-pox possesses some antagonistic power to Lepra, and throws out a hint that the latter disease has increased in proportion to the discontinuance of Small-pox inoculation. The experimental trial which "Senex" proposes is not such as we can recommend in our pages, for we cannot in any manner countenance or encourage the practice of propagating Small-pox, as no theoretical benefit can compensate, in our opinion, for the positive mischief which such an experiment would entail.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I was not aware when I wrote to you respecting a simplified method of operating for Congenital Phymosis, that Mr. Skey had proposed and performed an operation somewhat resembling mine, or I should have alluded to it as I did with regard to other writers. I do not, however, intend to bandy words with any anonymous writer.

If he wishes to hear more concerning this operation, (and I may not have made myself sufficiently intelligible,) let him divulge his name. I am glad to find that, notwithstanding in his opinion the operation which I described is the same as that described by Mr. Skey, yet that Mr. Skey's is the "simplest" and "best." I am, etc.

53, Brook-street, Grosvenor-square. HENRY DICK.

A Correspondent, in reply to one of our Queries, informs us that the Stethoscope invented by Dr. Leared may be obtained from the Messrs. Bigg, of St. Thomas's-street, Borough.

W. L.—The most certain proof of the existence of chicory in coffee is that furnished by the microscope. Coffee consists of a series of agglomerated cells of an angular form, bound together by a hard, semi-transparent connectivum. The cells of chicory are mostly free, or nearly so, like common cellular tissue, and are very large; besides which, there are present in chicory dotted ducts, and woody fibre, which are not seen in coffee. Again, coffee contains a volatile and empyreumatic oil, which greases its several particles even after it has been well ground; chicory does not; consequently, when coffee is stirred into water, it is not moistened, and it floats upon the water, whereas chicory is instantly wetted by the water, and sinks, giving an amber colour to the liquid. This is one of the simplest tests for the discovery of adulteration in coffee. Lastly, coffee contains an active nitrogenous principle *caffeine* ($C_{19}H_{10}N_4O_4$), which is not present in chicory, Mr. Horsley has lately proposed a test for coffee which is founded on the property which the gallic acid, contained in the berry, has of causing a deep brown colour with bichromate of potash; but the test is of no use in practice, because of its not discovering the presence of chicory.

Forensis.—The paper on the Burdon Slow Poisoning Case is declined with thanks. The subject has now been abundantly discussed, and we are unable to discover that any new light is thrown upon it by the remark of our Correspondent.

Querist informs us, that between five and ten years ago a statement appeared in a provincial newspaper, and also in one of the Medical journals, to the effect that some eight members of the London College of Surgeons were then employed as porters or policemen on some of the chief railways. Our Correspondent asks whether any of our readers can oblige him by referring to the exact paper in which the above statement was made.

X. Z.—Undoubtedly to the Principal.

Zeta.—1. Becquerel's "Traité Elementaire d'Hygiène Privée et Publique." 2. Neison's Contributions to Vital Statistics. 3. No special works, but several which allude to the circumstances incidentally. 4. Practical Meteorology, by John Drew, Ph.D. This work gives practical instruction in taking meteorological observations. 5. Aneroid is derived from *a, not*, and *νηρος, moist* or *fluid.*

Mr. Henry Smith's paper on "Tracheotomy in Croup and other Inflammatory Affections of the Throat in Children," has been received.

Mr. John Coventry—Will our Correspondent inform us in what work the term "heterogeneous adhesion," has been employed, and in what sense? The union of metals in alloys is an instance of chemical affinity, not of adhesion, or cohesion.

Dr. Renton's letter arrived too late for insertion; it will be noticed next week.

COMMUNICATIONS have been received from—

Dr. PEACOCK; Mr KESTEVEN; DENS; Mr. T. WESTROPP; Dr. R. U. WEST; Mr. LIZARS; Mr. W. SANDS COX; Dr. JAMES ARNOTT; Dr. BAYLIS; Mr. I. B. BROWN; M.D.; Dr. HUNT; Mr. BROOKS; Dr. DICK; Mr. W. L. BRITTON; QUERIST; SENEX; Mr. ANDREW WHITE; Mr. HENRY TAYLOR; Mr. JOSEPH WALKER; X. Z.; Mr. JOHN COVENTRY; Dr. BENCE JONES; W. L., A JUNIOR STUDENT; Mr. LEY; Dr. WILLIAMS; Dr. RAMSKILL; A UNION SURGEON; Mr. HARDWICK, Leeds; Mr. HOLMES, St. George's; Mr. SHILLITOE, Hitchin; Mr. BAKEWELL, Purton; Mr. DEBENHAM, Kensington; Mr. PARKINSON, King's College; Mr. TYRRELL; Mr. MAY, Guy's Hospital; Mr. WINTER, Brighton; Mr. COULCHER; Mr. HARTLEY, Cheltenham; Mr. WATKINS, St. Mary's; Mr. GILLESPIE, Durham; Mr. NORTON; Mr. E. HOOPER MAY, Tottenham; Mr. KEAMS; Dr. RENTON; Dr. CAMPS.

APPOINTMENTS FOR THE WEEK.

JANUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
12. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.: A paper will be read by Dr Tilt.
14. MONDAY.....		ROYAL GEOGRAPHICAL SOCIETY, 8½ p.m.: Dr. E. K. Kave's Report to the Secretary of the United States Navy on his Search for Sir John Franklin during the years 1852-53-54, accompanied by a Chart, showing the Discoveries made during the course of that Expedition; communicated by the Admiralty.
15. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. LINNEAN SOCIETY, 8 p.m.
16. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	HUNTERIAN SOCIETY, 8 p.m.: Dr. Lever "On Jaundice Coexisting with Pregnancy and Parturition.
17. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	HARVEIAN SOCIETY, 8 p.m.: Mr. Levison "On Dental Irritation as a Predisposing Cause of many anomalous kinds of Nervous Affections." ROYAL SOCIETY, 8½ p.m.
18. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m.

ORIGINAL LECTURES.

ON FUNCTIONAL DISORDERS OF THE NERVOUS SYSTEM.

By J. RUSSELL, M.D.,

Lecturer on General Pathology in Sydenham College, Birmingham; formerly Senior Physician to the General Dispensary.

Lecture II.

Gentlemen,—We have at present under our consideration cases of nervous disorder, the result of sustained mental effort, or of mental wear and tear, especially of prolonged anxiety; we frequently meet with such cases both in public and private practice; as among those engaged in the conduct of large and responsible concerns, or those whose family or worldly affairs occasion apprehension or uncertainty; such cases are especially common in the out-patient room of a Hospital or Dispensary, among those who are suffering from the uncertainty or depression of trade, and too frequently among women who are the victims of the misconduct of their husbands.

Prolonged mental effort, like sudden violent emotion, is capable of inducing the more serious forms of mental disorder: epilepsy, mental derangement, etc.; but happily such instances are few in comparison with those in which we are called to deal with the disorder in its earlier and more curable stages, and it is of the last importance that you should be alive to the nature of such cases. Obviously the cure is to be attained by relieving the mind; and this is to be done by removing, if possible, the source of trouble, by inducing the patient to unburden his cares to some judicious friend, and medically by obtaining for the nervous system, artificial repose by the use of narcotics (a). The state of nervous disorder which is thus induced, is a slow though steadily progressive disease; among the out-patients of a Hospital, it presents itself in the form which is usually denominated in the register, nervous debility; the larger proportion of the patients are of the female sex, partly from the greater sensibility of the nervous system in females, partly also because among the working classes, women are more exposed to the various depressing influences I have mentioned than men; in the higher classes, I think the proportion is reversed.

I have found these patients in a very nervous condition; making various complaints of an indefinite character; low spirited, and apt to shed tears without any apparent reason; irritable and startled by the least noise, even distressed by the play of their children, and unfit for the most ordinary duties; often haunted by an indefinable dread; entirely incapable of commanding their attention, and consequently very forgetful; they complain of anomalous headache, and their sleep is disturbed by horrid dreams. Some of these patients describe a tendency to see phantoms; a young lady one day told me that she had just had a most distinct vision of her mother, so distinct that she was only persuaded of its unreality by the most convincing evidence; she was very liable to this disorder, and attributed it to having been repeatedly frightened at school.

These derangements, at first limited to the nervous system, in no long time involve the nutrition of the body generally; the functions of the economy become impaired; digestion is performed imperfectly; menstruation in females is deranged, and the composition of the blood is injured. Not long ago I attended a case of fatal hæmatemesis, produced immediately by a contracted state of the liver, but I had no doubt, deriving its fatal obstinacy from a depraved condition of blood, brought on by prolonged anxiety, since judging by the analogy of similar cases, the disease in the liver was in too early a stage to account for the persistence of the bleeding. Degeneration of the muscular fibre of the heart, has been referred with good reason to this same cause, and general emaciation is by no means an infrequent attendant.

In the brief notice I have been able to present to you of this class of disease, it must strike you to observe how wide a range of maladies it comprises; you must also have been led to remark how imperfectly we can connect the cause with the effect, by any intermediate links; we are unable to say why mental impressions should produce epilepsy in one, insanity or delirium in another, chorea in a third; and why prolonged anxiety terminates in one or other of these serious maladies in some, whilst in others it ends only in general nervous depression; why again, convulsions should sometimes affect but a single part of the body, in others the entire muscular system. Thus far we may advance towards an explanation: that the nervous centres are subdivided into different tracts, each tract presiding over a particular class of functions thus the medulla oblongata is concerned with respiration; the corpora quadrigemina and the neighbouring tract, constituting the mesocephale, probably with the emotions; the intellectual processes are believed to take their rise in the grey matter of the convolutions, and the reflex actions in the true spinal cord; but what influences the affecting of one of these tracts in preference to another, has yet to be explained.

We are not, however, without an analogy in the healthy state of the nervous system. This analogy is afforded by the very different modes in which different classes of emotions exhibit themselves by muscular action. In this diversity we have proof that, even in the natural course, excitement of the same nervous tract produces totally different physical effects, according to the nature of the particular emotion which is produced. Another parallel case is met with, in the different tracts of nervous substance affected by different poisons.

In conclusion, an important practical lesson may be drawn from the facts I have laid before you: that, to treat these disorders with any hope of success, we must not limit our attention to the brain alone; that the ordinary routine plan of leeches, purging, etc. may be entirely erroneous, since the real cause of the malady may lie at a distance from the brain, or only involve that organ secondarily; that a careful examination of all the functions of the body, and a minute investigation of the patient's history, are requisite, in order to arrive at an explanation of the malady, and to obtain an indication for treatment.

I now purpose to say a few words on certain unhealthy conditions of the nervous system, which are either natural to the individual, or result from want of proper mental control.

A very scanty experience of the characters and habits of different individuals will suffice to show you, that mankind are formed with a very wide difference of nervous constitution; such differences constitute the most marked distinctions between individuals. Not only do they influence the character of the mind, but they are also exhibited in every function of the nervous system. We meet with the irritable and excitable temperament, and with the phlegmatic and unimpressible; with men of ardent, sanguine dispositions, and with the dull and impassive; with the hopeful and despondent, with the decided and vacillating; and these differences, though manifesting themselves most distinctly in the phenomena of the mind, are yet accompanied by correspondent diversities in the other operations of the nervous system.

Of all the facts connected with the history of the nervous system, none are of greater importance than this, that the

(a) This subject has been ably developed by Dr. Johnson, in the Lectures already referred to.

operations of this system, of whatever kind, are all greatly under the restraining power of the will, some more immediately than others, but all in some degree. It depends upon the degree of vigour with which this governing power is exercised, whether the individual shall be left to the uncontrolled sway of external influences, or whether his nervous system shall be so regulated as, not indeed to be independent of such influences, but so as to receive from them no more than the due amount of healthy impulse. An iron will, an indomitable exercise of self-control, gives its own direction to every act of a man's life, and not only gives him command over other men, but moulds the constitution of his own mind; and, by maintaining the entire nervous system in a state of healthy vigorous resistance, tempers the operation of external influences, and deprives them of half their disturbing power. The amount of control to be exercised will vary with different constitutions. A fretful or anxious disposition is affected with great intensity by circumstances which will fail to move a more placid or a more inert temper; to such a disposition everything becomes a labour, and it wearies itself with daily duties, which in another state of mind are a source of healthful occupation.

The character of a man is the resultant of these two elements, the nature of his nervous constitution, and the extent to which it is modified by the will. When the habitual control of will is neglected, the mind, and the nervous system generally, are left to their own course. Such course is always unhealthy in its direction; external influences are perpetually in operation, both upon the mind and upon the body, their influence becomes greater and greater, and, in subjects with a naturally susceptible nervous system, will operate with great power, and will be perpetually liable to produce symptoms of high nervous excitement.

There are individuals of perfectly healthy, though ill-regulated, minds, who have unfortunately given admission to the perpetual dread of disease; once this conviction has established itself, it speedily dilates, and fills the mind. With such people the idea of disease is constantly uppermost; they fix their attention upon every sensation within their own body, and construe it into an indication of the presence of some malady; they are morbidly fond of Medical details in any form, will take delight in talking of their supposed ailment, in hearing of the infirmities of others, and will read with avidity Medical works of any description. It is upon the propensities of this class of weak-minded individuals that unprincipled adventurers in the healing art calculate, in the exaggerated, and often disgusting, details they publish, and from the fears thus excited, that they reap a rich harvest of ill-gotten wealth.

The delight which such people take in medicine is really amusing; physic becomes to them what money is to the miser, —a thing to be prized for its own sake, irrespective of any end it is likely to serve. The complaints they make are, of course, founded upon the particular view they take of the malady by which they believe themselves possessed, and vary perpetually, according to the society they have last frequented, the book they may have read, or according to any other accidental occurrence.

There is another class of nervous patients, unfortunately a large class, principally among young females, though not wanting in the other sex; individuals who take a real pleasure in illness, have a morbid craving after sympathy, and fondness for the attention they receive; the indulgence of so mischievous a disposition is attended with the worst results, both as regards mental and physical health; the moral sense is blunted, or even altogether destroyed; the worst form of selfishness is engendered; and deceit—we may charitably hope self-deceit—becomes a habit; and whilst mental integrity is thus lowered, the bodily health is equally invaded by invalid habits, until the unhappy patient, self-persuaded, becomes the victim of hopeless valetudinarianism. These patients are very difficult of management; their history is full of inconsistencies; you will hear of their making extraordinary exertions to gratify their own inclinations, whilst professing themselves incapable of the smallest effort to mend their own condition. Your difficulty, too, extends beyond the patient to the friends; you have to contend with the mistaken views and mischievous sympathy of parents and relatives; and it is not an easy task so to regulate your conduct as to perform your duty to your patient, and at the same time to secure the co-operation of the friends.

Among the multiform disorders into which an ill-regulated or a disordered nervous system is prone to fall, there is one which is nearly allied in many of its phenomena with those I have been alluding to, but in which the ailment has really more of the character of disease; it is a disorder which is marked by a depressed, desponding state of mind, in which the patients are disposed to take a gloomy view of their condition, and are oppressed with an indefinable conviction of being seriously ill.

The apprehension of disease is not merely a foolish fear, but is a real disorder of the mind; the most trifling bodily ailments, even mere sensations, involuntarily exert depressing influence; the patients complain of trifling disorders with an urgency and exaggeration of description irreconcilable with any inconvenience which such disorders may produce; thus a patient of mine, in this condition, was thrown into a state of perfect misery by what she called an "intolerable pain" in her bowels, and yet she could give no better description of it than "a weak pain," and could not define its situation. She was morbidly afraid of having her bowels disordered, and was dreadfully distressed by the movement of flatus; and yet a few days afterwards, when her state of gloom had passed away, and she had an attack of real diarrhœa, she took little note of the circumstance.

The entire possession which such morbid impressions take of the mind, perpetuates them almost indefinitely. Some time ago a lady came to me, suffering great discomfort from a sensation in her throat, originally produced by a fish-bone, three months previously. She asserted that something had remained in her throat, and she was making perpetual efforts to swallow. A simple assurance of the groundlessness of her fears happily succeeded in curing her. But sometimes the supposed ailment is grounded upon the recollection of some former illness. The nervous system appears almost involuntarily to reproduce symptoms which have long ago subsided. A poor woman at the Dispensary, whose nervous system had been greatly depressed by poor living and hard labour, presented to me a series of symptoms so consistent in themselves, that I did not question the existence of some disease in her rectum; but, upon careful examination, I found her complaints groundless, and I saw reason to refer them to a nervous affection copied from an attack of dysentery, from which she had formerly suffered.

Among the subjective phenomena which spring up in such abundance and variety in this morbid condition of the nervous system, when the mind is wanting in energy, and the controlling influence of the will is but feebly exercised, none are more remarkable, and frequently more difficult of explanation, than the complaints of acute pain or extreme tenderness, which are made apparently in good faith, and yet without the existence of any apparent cause. That these complaints are closely associated with an unhealthy condition of the mind is proved by the fact, that they depend for their existence upon the attention of the patient being fixed upon the part in which they are alleged to reside; engage the patient in conversation, or avert her attention, and where the weight of the finger was intolerable, firm pressure is endured without complaint. Nor is pain the only one of the phenomena of organic disease which is thus strangely assumed; there is hardly a symptom which may not be imitated by the nervous system when in this artificial state, and frequently these assumed symptoms are grouped so naturally as to occasion no small difficulty in distinguishing real from apparent disease. Such disorders may be purely involuntary, extravagancies of a nervous system long abandoned to its own control; or they may be the result of an excited imagination, or the exaggerated manifestation of real physical disease; but, under any of these circumstances, their origin in deficient self-government is manifested by the fact, that they will generally vanish with magical celerity, in obedience to an effort of volition produced by some unwonted and sudden stimulus. To what extent the hallucinations of insanity are related to a like want of voluntary effort, and up to what limit the patient is morally responsible for the exercise of self-control, is a highly important inquiry connected with the subject of Judicial Medicine (b).

The condition of individuals afflicted with the state of

(b) Vide Small Books on Great Subjects, No. III., and Croonian Lectures. Dr. Mayo. 1854.

nervous derangement we are considering, is truly pitiable; often, indeed, it even assumes the form of insanity; their want of the power of controlling the operations of their mind prevents them from alienating themselves from their gloomy thoughts and apprehensions, and though depending, it may be, on their own exertions for their daily bread, they are entirely unable to fix their attention.

A very distressing case of this nature presented itself to my own observation, in the person of a gentleman who, ten years before, had been alarmed by seeing a man fall dead from disease of the heart; he immediately felt a pain in his own left side, and became possessed with the conviction that he had disease of the heart. In pursuit of this phantom he has consulted Medical men without end, and, when he came to me, it was plain that his reason was convinced, and that he perfectly anticipated the result of my examination; but still he could not reduce his belief beyond an abstract conviction; he was in a truly pitiable plight, living in a world within himself; to use his own expressive language, "he thought two minutes of himself and one of his business." And yet the only chance of cure is to accomplish the very thing so difficult of attainment. When once the patient acquires the mastery over the current of his thoughts his recovery is secured. With this object I have recommended the practice of committing to memory, requiring that the composition be learnt accurately.

The description which patients of this class give of their malady, constitutes by no means the least characteristic element in their history. It is couched in the most exaggerated terms; and, as every feeling and fancy is registered in the patient's memory, the comparisons employed are often of the most absurd description; a vast amount of irrelevant matter is interwoven: the length and intensity of their sufferings, the visits of the Medical man, the remedies employed at one time or another, the conversation of neighbours and friends, etc. etc., showing how entirely their minds have been occupied by the subject. I might easily incur the charge of burlesquing were I to repeat accurately the reports of such patients.

But it is not alone as a substantive disorder that you will meet with this deranged state of the nervous system; when present in a patient affected with organic disease, it constitutes a highly-troublesome complication, and must be regarded as a prominent feature in the case. It produces aggravation of all the symptoms of the disease, and often so distorts them as to render a correct diagnosis a matter of difficulty; the sufferings of the patient are increased, and the Medical attendant is called upon to exercise the greatest caution, that he may avoid taking too grave a view of the case on the one hand, or, on the other, being misled by the prominence of the symptoms of a purely nervous character. I remember an instance of this nature, mentioned to me by Dr. Fletcher, in which a case of cerebral disease assumed so much of an hysterical character, that until he noticed an inequality in the pupils, he was inclined to regard it as a purely nervous affection. He, however, on investigation, arrived at a different diagnosis, and as it proved correctly, for the patient died suddenly soon afterwards.

In order to render my subject complete, I ought now to enter upon the consideration of Hysteria, but my limits do not allow me.

In its nature, hysteria is closely allied with the form of nervous derangement on which I have been dwelling. It consists of a morbid condition of the nervous system, in part engendered, or, at least, greatly aggravated, by want of the control of the will; but, perhaps, if it were attempted to separate the best-marked cases, the distinction might be grounded upon the prominent place which the emotions occupy among the disordered functions. In hysterical subjects the emotions are readily excited, and are almost uncontrollable when aroused:—fear, hope, anger, despair, affection, love, assume their state of highest development; and to these we must add that the faculty of imitation is in unusual activity. From the centre of the emotions, in its state of exalted irritability, exaggerated impulse is conveyed to every part of the nervous system; hence the strange disorders of almost every function of the body, combined with the utmost perversion of the mental faculties. This state is very often connected with, and aggravated by, a disordered condition of bodily health, and a paroxysm of the disease is frequently determined by circumstances which depress the physical powers.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF FEVER BY LARGE AND FREQUENTLY-REPEATED DOSES OF QUININE.

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[Read at the Hunterian Medical Society, November 28, 1855.]

(Continued from page 33.)

Case 3. — *Typhoid.* — 10 *grains of quinine given every six hours.—Recovery.*—A block-turner, aged 21, admitted into Jacob's Ward, under my care, on the 13th of August, 1855. Notes taken at the time of his admission:—He states that he has been ailing since this day week, and was first seized with diarrhœa; for this he took pills, and subsequently Epsom salts. He has not had rigors or epistaxis; he spat some blood two days ago.

The skin is now hot, but moist. There are a few spots, of a decidedly typhoid character, on the abdomen and back; they are elevated, and fade on pressure. The tongue is dry, and morbidly red and chapped, with white specks on its surface, and glazed. The bowels are now acted upon only once in twenty-four hours. He had headache last week, but it has now left him, though he still suffers from pains in the limbs. The pulse is 88, sharp and small.

He was directed to have the citrate-of-potash mixture every six hours, and take 10 grains of the disulphate of quina also every six hours. The milk diet.

15.—Appears much the same. Tongue dry, morbidly red at the tip, and chapped. Pulse 84, of fair volume. Skin hot, but moist; the spots still out, and some fresh ones have appeared. Bowels acted upon three times in twenty-four hours. He has not been delirious, and sleeps fairly at night. Does not take his food well; his breath has a very acid, offensive smell.

To continue the treatment, and have 2 glasses of wine daily.

18.—Expresses himself as feeling better. He states that he has had singing in the ears, but it has left him. The tongue is morbidly red, and white on the dorsum, but less dry. The skin is hot, but moist. Pulse 84. The bowels acted upon twice in twenty-four hours. The spots are still out, but no fresh ones have appeared. He is intelligent, but there is some tremor of the hands. He takes his food better.

To continue the medicines; wine, 3 glasses daily.

22.—Tongue morbidly red, chapped, white on dorsum, and dryish. Pulse 100. Bowels acted on once in twenty-four hours. Spots have entirely disappeared. He has not been delirious, but has slept better for the last two or three nights, and is somewhat less prostrated. No material amendment having been observed, it was decided to omit the quinine, and to give 5 grains of the subcarbonate of ammonia every three hours, in one ounce of the decoction of bark.

25.—Pulse 88, of good volume. Tongue moister, less white towards the root, but still red and chapped. Skin cool, moist; no eruption. Bowels not opened since yesterday morning. Takes food well. To continue, and have, if required, 2 drachms of castor oil in the morning.

29.—Pulse 96, of good volume. Tongue pale, still dryish and chapped. Bowels acted upon twice in twenty-four hours since taking the oil. Takes his food well, and is stronger. Complains of pain in the left side of the chest, but nothing amiss can be detected. To have a mustard poultice on the side. To take the mixture only every six hours; 2 glasses of wine; fish.

September 1.—Much improved. Skin cool, moist. Tongue still furred. Bowels regular. Takes food well. To have 2 grains of sulphate of quina in one ounce of the cinchona and acid mixture three times a-day. To be allowed a slice of meat.

4.—Was seized to-day with severe pain in the left iliac region, extending across the lower part of the abdomen, and there is some tenderness on pressure; but the pain is less

since he had a sinapism applied. The pulse is quick and feeble. The tongue furred, and red at the tip and sides. The bowels have been confined for two days. He was directed to take 2 grains of calomel and one of opium immediately, and to be repeated at bedtime, if required; and to have the effervescent mixture. In the morning, if the bowels were not previously relieved, to have a small dose of castor oil; to have a linseed-meal poultice constantly applied on the abdomen. The milk diet.

6.—The bowels were acted upon once after I saw him on the 4th, and once yesterday, and he has had no pain since. The pulse is quiet, but the tongue continues coated. He expresses himself as feeling altogether better, and has taken his food well.

On the 8th, he was ordered the mixed diet.

On the 12th, the quinine mixture was again given.

From this time he steadily improved, but continued weak; and on the 22nd, complained of some pain under the left clavicle, and there was some deficiency of resonance on percussion there, and rhonchus: this was removed by a blister, and he went out cured on October 6, or on the fifty-fourth day from admission, and the sixty-first from seizure.

Case 4.—*Typhoid.*—10 *grains of quinine given every six hours.—Recovery.*—A labourer, aged 23, was admitted into Dr. Bennett's ward, while under my care, on the 28th of August, 1855:—

On the day after admission the following notes were taken:—Was seized two weeks ago with cold and shivering, followed by prostration of strength, and flushes of heat, some slight degree of relaxation of the bowels, and pains in the body generally, but especially in the head and loins. He is much prostrated, but was able to walk to bed. Tongue dry and brown on the dorsum and root; red and glazed at the tip and sides. Pulse 96, of fair volume; skin moderately warm and dry; there are three or four small rose-coloured spots, elevated, not acuminated, fading on pressure, on the abdomen. There is no inflation or tenderness of the abdomen; the bowels have been acted upon twice since his admission; he takes food fairly; he has not been delirious, and is quite intelligent, but speaks in a slow, heavy way, and has a torpid appearance; he has not had epistaxis; he coughs and expectorates some glairy mucus. He was taking the citrate of potash mixture, and was directed to have, in addition, 10 grains of quinine every six hours, and a glass of wine daily. Milk diet.

Aug. 30.—Pulse 92, soft and compressible; tongue morbidly red at the tip and dry; skin warm and moist. The spots still out; bowels acted upon twice since yesterday; complains of pain across the chest. 2 glasses of wine daily.

31.—Much the same. Has had a restless night; was sick this morning, and complains of pain in the abdomen; bowels opened once to-day. Pulse 88; no headache or giddiness.

Sept. 1.—The spots are still out. Tongue furred, but moist; skin hot and dry; bowels acted upon twice in twenty-four hours; restless at night, but not delirious. Pulse of fair volume, 100. 3 glasses of wine daily.

3.—Spots still out. Tongue moist and thickly coated; skin cooler but dry; bowels twice acted upon in twenty-four hours. Pulse 88, soft and small. Takes more food, but has a torpid appearance; makes no complaint of pain except at the pit of the stomach; and has not had pain in the head and no singing in the ears.

5.—Two or three apparently fresh spots. Skin cool but dry; tongue thickly coated with a white fur, but moist; bowels regular, and takes food better.

7.—Bowels confined, and a small haust. rhei ordered, and this was repeated each day with decided advantage; the quinine being at the same time diminished. He was convalescent on the 11th, and discharged cured on the 29th, or the thirty-second day from admission, and forty-sixth from seizure.

Case 5.—*Typhoid.*—15 *grains of quinine given every six hours.—Recovery.*—A Dock clerk, aged 24, admitted into Dr. Bennett's ward on the 4th of September, 1855. He was then in the seventh day of fever, of a typhoid type, with the usual eruption of rose-coloured, elevated spots; profuse diarrhœa; and much prostration of strength. On the day of his admission, 15 grains of quinine were directed to be given every six hours; 10 grains of tannic acid to be taken twice a-day, to check the diarrhœa, and wine at intervals, to support the strength. On the sixth, the pulse had fallen from 100 to 68, and from being of good volume, was become small and feeble. He was very torpid and prostrated, but had no headache, vertigo, or singing in the ears. The bowels were less relaxed, the wine was increased in quantity, and the quinine was continued for several days longer; but, from leaving home, I did not again see this patient, and have no notes of his subsequent symptoms. He was discharged cured on the 29th of September, or the twenty-fifth day from admission, and the thirty-first from seizure.

Case 6.—*Typhoid.—5 grains of quinine given every four hours; suspension of the medicine after seven doses.—Death.*—A sailor boy, aged 16, admitted into Jacob's Ward, under my care, on the 1st of November, 1855. He had been very much exposed, in the voyage from Goole to London, in a small schooner during the severe gale, but was quite well when he sailed. When admitted into the Hospital, he had been ill for four days, and was very much prostrated. Tongue covered with a thick yellowish fur, pulse 112, feeble, face very livid, no eruption on the skin; bowels somewhat relaxed. He was directed to have an emetic immediately, and six hours afterwards to take 5 grains of quinine, and repeat that dose every two hours. In consequence, however, of sleeping during the night, he took only 4 doses of the quinine in sixteen hours, and the following morning the pulse had fallen to 94; he was more prostrated and torpid, and the diarrhœa was more profuse, and face and hands still very livid; the extremities cold. He was directed to have the compound chalk mixture after each evacuation, and to take 2 glasses of brandy during the day, and 3 grains of sesquicarbonate of ammonia, in ʒss. of infusion of serpentary every four hours, and the quinine also every four hours. He took, however, only two other doses of quinine, and then, as the prostration, torpor, and diarrhœa were aggravated, the remedy was discontinued, and the brandy increased to 3 glasses daily. He vomited after the last dose of quinine. From this time the stimulus and support were most freely exhibited, and he had repeated blisters applied to the nape of the neck and to the scalp, but the torpor and prostration increased, he became gradually comatose and died convulsed, on the eleventh day from his admission into the Hospital, and the fourteenth from the commencement of the symptoms. On examination after death, there was found slight effusion beneath the arachnoid, and at the base of the brain; collapse of portions of the lungs; and extensive disease, with sloughing of the mucous membrane, of the aggregate glands in the ileum, and some ulceration of the solitary glands in the cœcum. At no period of his illness was there any eruption on the skin.

Case 7.—*Typhoid of the bilious type.*—10 *grains of quinine given every three hours.—Recovery.*—A labourer employed in making new sewers, aged 25, admitted into Jacob's Ward, under my care, on the 19th of October, 1855.

He states that he was taken ill six days ago with rigors which continued the whole night, followed in the morning by heat and a little sweating, but he continued cold and shivering the whole of that day. He has not had epistaxis, has vomited once, has been restless at night, and has had headache for several days, but states that it is now more severe. He has pains in his arms and legs, more particularly in the latter. His face is somewhat flushed, and the conjunctivæ are injected, and tinged of a yellowish hue. There are sordes on the teeth; the tongue is dry and brown: pulse bounding and full, 92; skin warm, but moist. There is no decided eruption, but there are one or two spots like typhoid coming out, and the skin has a slight icteroid tinging. The abdomen is somewhat tumid, there is no tenderness in the right iliac region, and no gargouillement on pressure. Pupils rather large. Respiratory and cardiac sounds natural. Bowels acted on once since admission.

Ordered pulv. rhei c. hydr. ʒiss., pulv. Doveri gr. v., h. s. Milk diet.

October 20 (3 p.m.).—Quinæ disulph. gr. x., mist. menth. sulph. ʒi., 2dis horis.

21 (11 a.m.)—Has taken five doses of the mixture, and expresses himself as feeling better, and his appearance is improved. He says he is in less pain. Tongue dry, brown, and chapped in the middle, and moist at the sides; some sordes on the teeth; has pain in the head at times; no tinnitus aurium or deafness. Pulse 92, of good volume. Bowels acted on three times, the stools relaxed. Yesterday he was slightly jaundiced, and to-day the skin is of a deep-yellow colour, and the conjunctivæ are much tinged. There is no tender-

ness on pressure in the region of the liver, but there is some enlarged splenic dulness. He has been living in Holloway for one year, and, for three years before that, in Paris and Brussels. He never had ague, but has been engaged in making new sewers for the last nine months. After the first severe rigor he had no regular periodic attack, but has had constant fever. The urine is very high-coloured. He is intelligent, and answers questions correctly; slept well last night. Skin cool, moist, no eruption. Hair to be cut short.

Mist. 4tis horis.

22 (11 a.m.)—Has had seven doses of the medicine since yesterday. Expresses himself as much better, and speaks in a better tone. Tongue much cleaner, but still dry, chapped, and brown in the centre. Pulse 72, of good volume. Skin moderately warm and moist; is less deeply tinged than yesterday. Has only had the bowels acted upon once. He hears distinctly; there has been slight singing in his ears, but not so as to be troublesome. Slept well last night, and takes his food well. There is no eruption in front, but on the back there are several spots of a rose colour slightly elevated, fading on pressure, and not distinctly marginated, indeed, characteristically typhoid. He has slight frontal headache. The urine is high-coloured.

Mist. 6tis horis.

23.—Still improving. Tongue dryish, chapped, covered with a thick white fur. Skin moderately warm and moist. Pulse 52, of sufficient volume. The spots out yesterday on the back still remain, and three or four others have appeared; the jaundice is much less marked; no deafness; but there is some singing in the ears; there is not much headache. He is stronger, and takes food well. Bowels open once or twice daily; water still high-coloured; no vomiting; free from pain. He is quite intelligent.

24.—Still improving, skin cool and moist. Pulse 56. Tongue chapped, covered with a whity-brown fur, but moist and cleaner. Jaundice slight. There is some pain across the abdomen. There are no spots in front, the spots noticed yesterday are nearly gone; those first observed are not entirely gone, and there are two or three fresh ones. Bowels not open to-day; no tinnitus aurium or headache.

Ordered ol. ricini ʒij. st., mist. ter die, wine 2 glasses.

25.—Bowels acted on after the oil, and he has been free from pain in the abdomen since. He is still improving, and takes his food well. Tongue chapped, covered with a whity-brown fur, but moist. Pulse 48, quiet. Skin cool, moist. The spots marked yesterday are still out, and there is one fresh one on the back; no spots in front. No ringing in the ears, or headache.

Ordered to omit the mixture, which he has, up to this time, taken every six hours. Mist. cinch. c. acido. ʒj., quinæ disulph. gr. ij., ter die.

26.—Expresses himself as feeling much better. The jaundice is less, and the skin is moist and cool. The spots noticed yesterday on the back still remain, but there are none in front. His tongue is still chapped and coated in the middle. Has had slight headache during the night, and did not sleep well; there is no singing in his ears. Pulse of good volume, 52. Bowels have been open four times since yesterday, and the stools are relaxed. His urine is not quite so high-coloured. He is not thirsty, and takes his food well.

27.—Appears much improved. Tongue moist, chapped, pale, and slightly furred. Pulse 60; skin cool, moist, and natural. The spots are not entirely gone, but there are no fresh ones. Bowels acted on three times during the last twenty-four hours; no headache, singing in the ears, or deafness.

Ordered slice of meat.

29.—Up for the first time.

31.—Pil. rhei c. hyd. gr. x. h. s.

November 7.—The conjunctivæ are still slightly tinged.

Discharged cured on November 8, or the twentieth day from admission, and the twenty-sixth from seizure.

In all these cases the most marked effect produced by the large doses of quinine was the depression of the power and frequency of the pulse. In one case the beats were only 48 in the minute on the fourth day after the commencement of the remedy, and when sixteen 10-grain doses had been exhibited; and, in this instance, the only other effect produced by the drug was slight frontal headache, and singing in the ears, and the patient steadily improved during its employment. In two cases the torpor and depression of strength increased under the use of the remedy; but, as these symptoms subsided, while it was still persevered in, it is not clear whether they should be ascribed to the action of the quinine or to the natural progress of the disease. In one case only was there more than transient headache or vertigo from the use of the remedy; and this was also the only case in which there was very marked tinnitus aurium. In one case there was decided deafness, but, in this instance, the hearing was impaired from the time of the patient's admission. In one of the only two cases in which vomiting occurred, an emetic had been given at the commencement of the treatment. In one case the diarrhœa, previously present, was considerably aggravated under the use of the quinine.

The general results of the treatment may be stated as follows:—

1. In one of the cases of typhus, the quinine was certainly not productive of any benefit, and probably added to the torpor and depression of strength. In the other case of typhus it produced the most marked depression, and the patient was only saved by its discontinuance and the liberal exhibition of stimulants. In both cases, though the patients recovered, the disease seemed to follow its natural course, and to be in no degree curtailed in duration by the exhibition of the remedy.

2. In one case of typhoid, the depression of power and torpor increased under the use of the quinine, but the notes are too imperfect to allow me to speak confidently as to its effects. The patient recovered after an illness of average duration.

3. In two other cases of typhoid, the remedy appeared to exert neither beneficial nor injurious effects; the disease followed its usual course, and the patients recovered.

4. In another case of typhoid, it certainly added to the torpor and depression. The remedy was only exhibited in small doses, and for a short period, and was entirely discontinued after six doses had been given, in the course of a day and a-half, and stimulants and other means were then freely had recourse to; the prostration and torpor, however, increased, and the patient died comatose.

5. In the fifth case of typhoid, in which the affection was combined with bilious complication, the quinine was decidedly beneficial, the patient steadily improving under its use. The attack was certainly of shorter duration and less severity than might have been expected from the urgency of the symptoms when the treatment was commenced; but, in this case, the amendment was gradual, and no sudden improvement in the symptoms at any time occurred.

In all the cases the patients had stimulus and support as required, and other accessory treatment, such as astringents, aperients, and anodynes, etc. While also the quinine was exhibited in the various cases in different doses and at various intervals, the different results bore no relation to any of these circumstances.

The facts and observations which I have now related must only be regarded as a contribution towards the solution of the question of the usefulness of large and repeated doses of quinine in the treatment of the continued fevers of this country. So far, however, as they go, they are opposed to the views of Dr. Dundas, that quinine possesses the power of cutting short the attack; on the other hand, they indicate that the remedy is, in some cases, beneficial; but only as an auxiliary to other measures. It remains to decide, by more extended observations, in what forms of fever, and under what peculiar circumstances, local and individual, the remedy may be advantageously employed; and whether the quinine is more useful in moderate doses at distant intervals, or in the large and frequently-repeated doses which have been recommended.

There is, doubtless, a mean between the results arrived at by different observers which correctly represents the usefulness of quinine in fever; and I am disposed to believe that the very discrepant statements as to its effects, before quoted, may be reconciled by reference to the various characters of fevers in different localities and seasons, and under different circumstances. From an observation before narrated, and from somewhat extensive experience of the use of quinine in smaller and less frequently repeated doses, I feel satisfied that the remedy is useful in the bilious type of typhoid, and also in cases which display a remittent character, or have a tendency to relapse. During the course of last summer, the fever which prevailed was very frequently followed by relapses, and in them quinine was eminently beneficial. There

is also a form of typhoid which is of frequent occurrence, in which the fever, though never very intense, is extremely prolonged, day after day elapsing without any material change in the symptoms. In affections of this description also, quinine is productive of marked advantage, and much accelerates convalescence. My experience, however, of the use of quinine in such cases, is only of its employment in doses of 3 to 5 grains three or four times daily. I am not able to say whether the remedy is more useful in such doses, or when exhibited so as to produce the markedly sedative operation on the vascular and nervous systems, indicating the full physiological action of the drug, and to which the term cinchonism has been applied. Possibly, the different types of fever may affect the dose which it is desirable to employ—the larger doses being preferable, from their sedative effects, in the more sthenic forms; and the smaller, in the adynamic fevers which require a tonic treatment.

It only remains for me to inquire how far Dr. Dundas is correct in his assertion that the quinine treatment "when not curative, is never followed by the slightest ill effects."

Dr. Goolden mentions that in one of his cases, each dose of the quinine produced headache and excitement, and the remedy was in consequence discontinued after the third dose. In two cases under Dr. Robertson, it is reported to have caused decided coma, and I have already alluded to Dr. Barclay's remarks on this symptom as observed in one of his cases. In one of Dr. M'Evers' patients, it was necessary to discontinue the remedy, from its producing violent headache; and as before mentioned in two of my own cases, it probably increased the depression of strength and tendency to coma, and in two others certainly produced those effects. Contrary, however, to the conclusions of most English observers, M. Briquet infers, that the remedy is useful in calming the watchfulness and delirium of fever; while he agrees with them in regarding it as aggravating the tendency to coma. These facts are certainly sufficient to qualify the assertion of Dr. Dundas, and knowing as we do, the serious effects which have been found in France, to follow the use of large doses of quinine, (larger it is true than those recommended by Dr. Dundas, as 3 or 4 grammes, 46 2 to 61·6 grains,) as related by Bretonneau, Trousseau, and others, we should, at least, exercise great care in employing them. With proper caution, however, and a full knowledge of the physiological action of the drug, should future experience prove, that to obtain the full benefits of the remedy it is necessary to exhibit it in the larger doses, there can be no just objection to its being so used.

ON CRIMINAL RESPONSIBILITY.

By ROBERT HUNTER SEMPLE, M.D.,

Licentiate of the Royal College of Physicians, Physician to the Northern Dispensary.

The records of our criminal jurisprudence are fertile in instances in which the most atrocious crimes are perpetrated by persons who are absolved from responsibility on the ground of insanity. The mind is horrified at the tale of a mother cutting the throats of her helpless infants as they lie slumbering in their beds, or of another parent hurrying away her progeny in the darkness of the night, and drowning them in the river. These persons are acquitted, and no doubt properly, because they are irresponsible for their actions. But in another case, a man of apparent respectability, and good education, entertains a groundless suspicion that a clergyman, with whom he had been formerly acquainted, had formed an improper connexion with his wife; and acting upon this delusion, he procures a pistol, balls, and other ammunition, travels down to the village where the clergyman is accustomed to preach, and enters the church with the obvious intention of murdering the preacher; but by a fortunate accident he leaves at the inn the bag containing the loaded pistol, and brings into the church another bag which does not belong to him. Thus his murderous intention is frustrated; but as the abortive attempt is only a sequence or an accompaniment of a series of threats directed at the unoffending clergyman, the latter brings his tormentor to the bar of justice; yet upon a verbal promise to desist from annoyance (a promise which is not kept), and upon his finding bail for his good behaviour, and for his appearance when called upon to receive judgment, the accused is allowed to escape.

I cannot help feeling that cases like the above, which are almost of daily occurrence, deserve the most serious attention, not only of the Profession but of the public at large; and the opportunity is an appropriate one to offer a few remarks upon the difference between Insanity and Crime, upon the practice of the legal profession in the cases now under consideration, and upon the duties of the Medical Practitioner when placed in relation with insane persons, either before or after their appearance at a criminal bar.

Although it may seem plain enough at first sight to distinguish insanity from crime, the fact is that the boundaries which separate the one from the other are by no means accurately defined, and the difficulties of the subject increase as we proceed in the investigation; and those who are in the habit, like some superficial barristers, of abusing the Medical witness because he cannot draw the exact line which divides responsibility from irresponsibility, will find, upon a little investigation, that the difficulty exists in the principles of the law itself, and more deeply still in the very constitution of the human mind. For the aspirations of the law, in its highest development, are directed to the discovery of that abstract principle of equity, which has never yet been isolated, and like the mind itself has never been disencumbered from the dross around it. The Roman poet says,

> Sunt certi denique fines
> Quos ultra citraque nequit consistere rectum;

but the boundaries are yet to be discovered, and the abstract principle of right is as far away as it was in the time of Augustus.

In the absence of any defined standard of Justice, to which all mankind may implicitly submit, the various nations of the earth have erected standards for themselves, and this standard in each country constitutes what is called the Law; and as it often happens that what is lawful in one country is unlawful in another, and *vice versâ;* and as, moreover, the law itself is differently interpreted by its own members, it follows, after all, that the limits of Right and Wrong are determined in different nations upon certain conventional principles, which are more or less conducive to the general welfare and happiness of the human race, in proportion as the nations themselves are more or less advanced in civilization and refinement.

Now, any person who violates the rules thus laid down by a community for the general welfare, becomes a criminal, and amenable to the law. Thus murder, which robs a person of his life, and theft, which robs him of his property, are crimes, because they are clearly injurious to the welfare of the whole people; but that the mere destruction of human life is not a crime in itself, is proved by the fact, that the slaughter of our enemies in war has ever been considered, in the most enlightened countries, rather meritorious than otherwise; and even in the case of theft, the moral guilt of the delinquent is very much modified by a consideration of the motive which has prompted the act. The wretch who steals a quartern loaf, to allay the pangs of hunger, has a very different moral responsibility from him who habitually steals because he is too idle to work.

If it is so difficult to give an accurate definition of Crime, it is still more so to give one of Insanity; and especially since the law vaguely defines insanity as the inability to distinguish between right and wrong; whereas neither the lawyers nor any other human beings can accurately define the meaning of these two words. If I were inclined to sophistry, it would not be very difficult to show that crime itself is a species of insanity; for the law having been made for the good of all, whether individuals or communities, it is clear that he who commits a crime is really injuring himself, and as his so doing is contrary to the common instincts of human nature, he ought to be considered insane.

But it is evident that this idea of the identity of Crime with Insanity can only be regarded as a metaphysical abstraction, and that its introduction into practice would be attended with the most destructive consequences, and, therefore, in the great majority of cases, criminals are considered as responsible beings, and, as such, amenable to the law of the land. But I think it will be readily admitted that the modern treatment of crime is founded upon the view that it is really an insanity, or, rather, an *unsoundness* of the mental faculties; for many of our prisons are not so much abodes of punishment as Schools of reformation; and even in the treatment of our worst criminals, a plan of moral and physical indulgence is

pursued, which certainly makes the lot of the felon more enviable than that of the pauper. I do not blame this system; I only adduce it as a proof that crime is regarded and treated by our legislators as a species of moral disease.

But, again, there is a class of persons who violate the conventional rules of the community in which they live, or, in other words, commit unlawful acts, but who do so without being conscious that such acts are unlawful. This may happen in three distinct sets of offenders:—1st. Among those who have never received any education, and, therefore, are unable to discern between what, in any community, is considered right, and what is considered wrong; 2nd. Among those who are idiotic from birth, and who, from possessing small brains, or from diseased conditions of that organ, are reduced to a level with the brutes; and, 3rd. Among those who, having once received some kind of education, and possessing a well-proportioned cerebral development, fall into what is called insanity, or unsoundness of mind.

It is obvious that the first two sets may be dismissed at once, but the great difficulty lies with the third set, and the great problem to be determined is, how to establish the principles which are to shield the criminal from the consequences of his offence, and to transfer his treatment from the discipline of the gaol, or suspension by the halter, to the Medical superintendence of a lunatic asylum.

Upon this very difficult point I have no dogmatical opinions to offer, because every case must be treated upon its own merits, and no rule can be laid down which can be available in every instance. I repudiate the idea that the solution of the difficulty is to be found in the use of the technical language, or of the artificial distinctions drawn by the lawyers, and insisted upon by them with such pertinacity, and I might add, ignorance. I even doubt whether *physical* Medical examinations (except in certain cases, as, for instance, where a woman commits a crime while labouring under puerperal mania) throw very much light upon the matter. The pulse of the accused may be tranquil, the tongue clean, the head cool, the secretions regular, and yet he may have murdered his father, his wife, or his children; nay more, I may state as the result of very considerable experience, that insanity may exist to a high degree without any appreciable lesion of the cerebral organs. I say *appreciable*, because I do not deny that some physical changes may exist in the brain, in every case of insanity; I only assert, that I do not know what they are, and that the alleged appearances of congestion of the membranes, subarachnoid effusion, slight degrees of induration or softening of the cerebral substance, all may exist in cases where there is no insanity at all, or may be wanting in cases of well-marked and long-continued aberration of intellect. Without at all denying that the brain is the instrument of the mind, I believe that we are still very far from knowing the exact relation which exists between the structure of the one and the functions of the other; and, in the mean time, I attach little confidence to the attempts which have been made from time to time to explain the wanderings of a morbid fancy by reference to supposed physical appearances.

But although the *physical* Medical examination of a lunatic patient too often throws very little light upon our investigations, the *psychical* Medical examination is a most important and indispensable part of our duties; and apart from the perplexing technicalities of modern lawyers, may and often does lead to correct conclusions with regard to the responsibility or otherwise of the accused. Here we must rejoice that the studies which fit us for our Profession enable us to pass the boundaries of matter, and to explore the mysteries of the spiritual world; and difficult as the task undoubtedly is, we must seek by a study of the anatomy (so to speak) of the human mind, for a clue to the morbid conditions of the same powerful principle. We must examine the general character and disposition of the patient; must ascertain the degree of education he has received; must trace the relative importance of his intellectual, moral, or merely animal faculties; must dive as far as possible into his principles of thought and action; must ascertain whether any remarkable change has lately, or at any time, changed or perverted the current of his ideas or of his conduct.

Now, the practical result which I wish to draw from the above remarks is, the improvement of the present practice in relation to what is called criminal lunacy. In the cases alluded to at the commencement of this paper, crimes of the most atrocious character,—murders, by mothers, of their own offspring,—have been undoubtedly committed; and during the trial of both these unhappy women, evidence of a most convincing character was adduced to prove the irresponsibility of the murderesses. But the question naturally arises, if the evidence was so convincing of insanity, *after* the commission of murder, why did no one take the trouble of pointing out the facts *before* human life was so cruelly sacrificed? In one case, it was proved that the prisoner had suffered from milk fever (probably, puerperal insanity), and that her mind had never recovered its tone; and that, moreover, her father was confined in an asylum as an incurable lunatic; in the other case, it was shown, that the mother conceived both herself and her children to be labouring under incurable diseases, and that she destroyed them as the most merciful plan of terminating their miseries. Now, can any one for a moment doubt that in both these cases there existed obvious and dangerous delusions? Why did not some of the witnesses, and especially the Medical ones, keep a watchful eye upon the conduct of these unhappy mothers, and thus prevent the commission of horrible infanticide? Why is the commission of murder to be the only valid evidence of insanity?

We believe the answer is to be found in the feeling of the present day, which is almost a morbid feeling,—to allow liberty to every one to the fullest extent, even at the risk of allowing injury to be inflicted on others. I am very far, indeed, from wishing to infringe in any manner upon the great and glorious privilege which belongs to the British subject, of being the uncontrolled master of his own actions; but I maintain, that when the mind of a man falls into a morbid state, such as may endanger the safety and welfare of the community, such a person should be, not punished, but controlled from injuring himself or others. That the present state of the law is culpably lax, by carrying a principle, good in itself, to too great a length, is abundantly evident from the other case to which I have directed attention; where a man, entertaining a *groundless* suspicion as to the virtue of his wife, utters a series of menaces against the *supposed* adulterer, and follows up his threats by an actual attempt (happily abortive) to destroy an innocent man. If the latter *had* been destroyed, the assassin would, of course, have been acquitted on the ground of insanity; and yet, because he has not *succeeded* in his murderous attempt, he is allowed to go loose, upon his verbal promise—the promise of a lunatic!

I am quite aware of the difficulty of the subject now introduced; other and abler pens than mine may probably enlarge upon a topic which is fertile in interest to all civilized communities; but my conclusion is, that the law should, if possible, *prevent* lunatics from committing crimes, instead of confining them in a lunatic asylum *after* the crimes have been committed. In the case of the person who attempted to shoot the clergyman, the evidence of insanity is so clear as ought to have rendered it imperative upon the Judge to detain the accused, and place him under Medical care; but there are several milder forms of mental aberration which no less require the vigilance of relatives. During last week, a gentleman entered the boxes of a crowded theatre, in a state of intoxication, armed with a revolving pistol (fortunately not loaded), which he pointed at the audience. Can there be any doubt that this person's conduct was of a dangerous tendency? and could he have any reason to complain, if, acting like a madman, he should, at least for the time, be treated like one?

What I would, therefore, urge is, that the whole subject of criminal lunacy should be carefully reconsidered by our statesmen, our lawyers, *and the members of our Profession*; and I say emphatically, that the latter should have a principal share in the deliberations. I have no taste for *dilettanti* noblemen, however amiable and excellent they may be, usurping to themselves the right of exclusive legislation upon a subject which belongs to our Profession, and in which our opinions ought to have very great weight. Nor have I any profound regard for legal decisions coming from Judges, who, in maintaining (and properly, within due limits) the liberty of the subject, would allow of the commission of crime.

I maintain that in cases where delusions are proved to exist, and, more especially where those delusions may lead to actions dangerous to society, a degree of *surveillance* ought to be exercised. If a man either is a madman, or pretends to act like one, it can do him no harm whatever that his actions

should be watched; and even if it should turn out that his malady is temporary, or that his conduct was merely assumed, I cannot understand why he should be otherwise than grateful to those who have kindly interposed to prevent anticipated evil. I do not urge that all such cases should be locked up in lunatic asylums, but I do maintain that they should be carefully attended by competent persons, until their sanity or insanity is completely established. A person who is suspected of picking a pocket, and is taken to the station-house, has no redress if he were not confined from malice, but upon reasonable suspicion; why should a supposed insane person complain, if, in mercy to himself, he is prevented, by gentle *surveillance*, from hurting himself or society?

It is impossible to exaggerate the evils consequent upon the present practice, which is founded upon a mistaken view of personal rights, and upon the decrees, often arbitrary and often changing, of legal authorities; but the instances have now become so numerous that they are likely to attract attention. Every one must rejoice that the treatment of insanity is founded in the present day upon humane and enlightened principles; but let not this proper relaxation in the severity formerly exercised towards lunatics, lead us into the opposite extreme, and expose the lives of helpless infants, or of other unoffending members of society, to the random attacks of irresponsible assassins, who are proper objects for the vigilance of the State.

CASE OF STRANGULATED HERNIA.

OBLIQUE INGUINAD.—CONTENTS OF THE SAC—OMENTAL OPERATION—THE OLD ONE OF OPENING THE SAC—RECOVERY, ETC.

By JOHN REES,
Deputy-Inspector Bermuda Hospital.

M——, residing at Hamilton, in Bermuda, aged 62, of regular habits, healthy, muscular, rather corpulent, phlegmatic temperament, was ruptured about four years ago.

The first alarm he had of being ruptured was a swelling appearing in the groin; but the day previous to that he had been exerting himself much hauling in a rope; and although "nothing went wrong with him" at the time, he was induced afterwards, on reflection, to attribute the rupture to over-straining himself on that occasion. Since that time he had always worn a truss, which he has been in the habit of taking off every night before going to bed. The gut often came down during the night, but he had always succeeded in returning it by pressure with his hands, until the night of the 13th ultimo, when the hernia having again descended on his jumping into bed without his truss, and failing in his attempts at reduction, he sent for his Surgeon, whose repeated endeavours to return the tumour by the taxis also proved unsuccessful.

I was called in consultation sixteen hours after the occurrence of strangulation. I found a large, oblong, inelastic, unequal swelling in the right groin, extending from the external ring to the scrotum. Coughing communicated no impulse to the tumour. There were no very urgent symptoms present, but it was evident that the system had already taken the alarm. There was anxiety in the countenance; the pulse was up; the bowels confined; and he was beginning to complain of pain in the neck of the tumour. The taxis had been twice tried in the hot bath; a dose of castor-oil, and a turpentine enema had also been administered.

I recommended another attempt at reduction by the taxis in the hot bath, but not until after bleeding had been carried to syncope. This also failed, although the taxis, as the patient complained of no particular tenderness in the tumour, was persisted in for at least half-an-hour.

Having been allowed time to rally from the effects of the bleeding and the bath (his third bath), he was placed on a table convenient for the operation; had chloroform administered to him, and the taxis having again failed, although now tried with the patient under the full influence of chloroform, which was kept up, the operation was performed twenty-four hours after the occurrence of strangulation, but yet before any urgent symptoms had set in. Indeed, the only symptoms of strangulation present were constipation, vomiting, and pain at the neck of the tumour.

I made the usual incision, about three inches long, in the axis of the tumour through the skin, the cellular tissue, and the superficial fasciæ. The other fasciæ I divided on the director, making, however, more layers than the true anatomical hernial coverings. A jet of fluid escaped on opening the sac. The contents were found to be entirely omental, congested, but otherwise of perfectly healthy appearance. They were much bound down at the external ring, which had to be dilated. But the real obstruction was at the internal ring, where the stricture was very tight, scarcely admitting the tip of the index finger. Having divided the stricture freely with the "bistouri caché," the contents of the sac were immediately and easily returned. The divided parts were brought together by suture. A compress and a bandage were applied.

The patient passed a good night, the operation having been performed about 9 p.m. The forenoon of the following day the bowels began to act; most of the tract of the wound healed by the first intention, and the patient is already quite recovered, and without one single untoward symptom having occurred.

It was decided, in consultation, that the repeated unsuccessful attempts at reduction by the taxis, under the circumstances described, justified the operation, without waiting for urgent symptoms; and the happy results have proved the soundness of the reasoning.

I submit this case for publication in the *Medical Times and Gazette*, and under the head of "Navy Medical Reports;" because there anything important or interesting occurring in Naval Medical practice is now expected to appear. And this case is not without its interest to the Naval Surgeon, because hernia, although very common in sailors, very rarely becomes strangulated in them, rendering the operation for strangulated hernia an event of rare occurrence in the Navy; whilst this case is also, in some respects, interesting from the contents of the sac being entirely omental; their perfectly healthy appearance, although strangulated for twenty-four hours; the slow, and to the last, imperfect development of symptoms of strangulation; the operation being performed before it was urged on by dangerous symptoms; the complete and speedy recovery of the patient, and that without the occurrence of one untoward symptom, etc. etc.

Naval Hospital, Bermuda, November 6, 1855.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASE OF THE SUPRA-RENAL CAPSULES.

(Continued from page 649.)

GUY'S HOSPITAL.

BRONZED SKIN—DEATH—AUTOPSY—DISEASED SUPRA-RENAL CAPSULES.

(Communicated, with Remarks, by Dr. GULL.)

CHARLES WEBB, aged 24, was admitted into Guy's Hospital, under the care of Dr. Barlow, July 24, 1855; a well-formed man, of temperate habits, employed as a carpenter at the Crystal Palace. Always had robust health, until five months ago, since which time he has been ailing with *debility, breathlessness on exertion, nausea, and what he terms biliousness, with a gradual darkening of his complexion.* He attributed the onset of his symptoms to over-exertion in running to catch a train. He continued to work until within a fortnight of his admission into the Hospital, but was under Medical treatment for what was considered to be dyspepsia. On admission his principal symptoms were great debility, emaciation, irritability of stomach, and a tawny colour of the complexion. The pulse was regular, but very soft and feeble, 70. Tongue clean; entire loss of appetite. The vomiting continued unchecked; the tint of the skin rapidly became of a deeper

brown. On the day before his death the following notes were made of his condition :—Great malaise and exhaustion. No cerebral disturbance. Constant nausea and frequent vomiting ; tongue rather dry and injected; abdomen retracted to the spine ; sharp aortic pulsation ; radial pulse very feeble, 120 ; no tenderness in loins ; skin of a sallow, olive brown. Inside of lips mottled with black pigmentary deposit, and surface of lips dark, so as to give to a superficial observer the appearance of sordes. The dark colour of the skin is most marked in the lower extremities, about the knees ; hair dark brown ; irides blue ; nails pearly white. Blood drawn from a puncture of a bright and full colour, but rich in white corpuscles. Urine of a pale straw colour, free from albumen. He suddenly sank a few hours after these notes were taken.

The body was removed to Hatfield without examination ; but, as the case appeared to be a striking instance of disease of the supra-renal capsules, I determined with my friend Dr. Bealey to follow it. After much opposition from the friends, we succeeded so far as to be allowed to make a small incision into the abdomen, with a promise from us to do no more than remove the capsules ; this, therefore, only was done. Both capsules were diseased. The left one was much atrophied, and in the place of the original structure were several cysts, one as large as a hazel-nut, containing rather turbid, colourless fluid. The right capsule was also much wasted, and in its substance were many round indurated masses, varying from the size of a small pea downwards ; they were firm, opaque, and fibroid in structure.

Although this case, from the want of opportunity to examine all the organs, is defective, yet there are points about it which give it an especial interest. It is certainly a fact worthy of note, that we should be able at a glance to recognize a condition which associates itself with the disease of organs whose nature is at present so obscure, and further that upon such pathological faith, as we must at present term it, we should be able with certainty to anticipate disease of parts whose uses are at present a complete mystery.

I certainly felt it a step in advance, thanks to my friend and colleague, Dr. Addison, when, through a small incision in the abdomen, after travelling many miles to verify our anticipation, I drew out both capsules in a state of atrophy and disease. Perhaps the circumstances were such as to produce a bias in the mind, but certainly they seemed to give an unequivocal affirmation to the truth of the meaning of the facts which Dr. Addison has thrown together in his contributions to the pathology of these organs.

What the supra-renal capsules are it is at present not possible dogmatically to assert. Systematic physiologists have classified them with glands, for no other reason than that they could not conceive what else they should be ; but recent microscopic inquiries would again refer them, as Wharton did, to the nervous system. This celebrated anatomist, after reciting the names which had been applied to them, says, "Many others might, probably, be given, but that which seems to me to square with them most is 'glandulæ ad plexum,' or 'glandulæ ad plexum nervium.' After contending that these organs do not belong to the lacteal system, he enlarges on their remarkable connexions with the ganglia of the solar plexus, and states an obscure hypothesis of their separating a fluid from the nervous structures into the veins.

Though our advances in the physiology of nervous action give no support to such an hypothesis, it is yet probable that, in the remarkable nervous connexions of the supra-renal capsules, he pointed out the foundation of their physiology. It is impossible for any one to survey the anatomical relations of the semilunar ganglia to these organs, without feeling how strong the probability is of such a conjecture.

Their general and microscopical anatomy is also more or less confirmatory of such a view of their function, as well as the newly-observed clinical facts when they are diseased, namely, the great exhaustion, the feebleness of the heart's action, the nausea, vomiting, etc.

The two structures which compose the capsules are similar in general and microscopical appearance to the two structures which compose that appendage to the brain, which we still continue to call the pituitary gland. Also the remarkable venous sinuses which bathe the one, are comparable to the numerous veins which fill the interior of the others. The most distinguished of modern anatomists have admitted that the medullary structure of the capsules is similar to the grey matter of the brain, and Kölliker, in his Microscopical Anatomy, says, that he cannot but agree in those views, especially as he finds in this structure caudate cells which very much remind one of nerve cells ; and he adds, that the cortical and medullary portions entirely differ from the parenchyma of the thymus or thyroid with which the renal capsules have been associated ; while the enormous supply of nerves to the medullary portion gives them a character quite peculiar, since we have no secerning organ in the body remarkable for its nervous supply.

ST. BARTHOLOMEW'S HOSPITAL.

BRONZED SKIN ASSOCIATED WITH CACHEXIA AND DEBILITY—DEATH.

(Case under the care of Dr. BURROWS.)

The following case is incomplete, inasmuch as no post-mortem was obtained. It appears, however, to be still worthy of record, as furnishing an additional fact in support of the belief that the bronzed condition of skin is symptomatic of a cachexia, which will sooner or later end fatally. The other symptoms present—the pain in the back, debility without emaciation, etc.—were all of the class most usual in the cases described by Dr. Addison ; and as no other organic disease was detected by which to account for them, the conjecture that the supra-renal bodies were affected has a considerable amount of probability. We are indebted to Mr. J. E. Barford, one of Dr. Burrows' Clinical Clerks, for the notes of the case :—

M. A. T., aged 28, a delicate-looking woman, was admitted on May 18, 1855. Her expression was languid, and somewhat anxious, and the skin generally presented a remarkable deviation from the natural colour, being of a tawny or yellowish brown tint. The face was the part most deeply tinged, and next to it, the browning was greatest on the arms, on the front of the thighs, and legs. The discoloration was in irregular patches. As she lay in bed on her back, the respiration was natural ; the pulse 60, soft, very small and weak. Her tongue was clean, but glazed, and slightly fissured. Appetite very bad. The bowels usually acted daily, and the menstrual functions, excepting in being sometimes too frequent and profuse, had been regularly performed. She had slightly-increased thirst. Her chief complaint was of pain in the lumbar region, and of great debility. When standing, she stated that she felt very weak, and was often giddy in the head. The pain complained of in the loins would come on every two or three hours, lasting for an hour or two at a time, and then going off. It was not confined to the back, but, beginning there, would pass round into the lower part of the abdomen. It did not appear to be increased by pressure.

History.—She was a married woman, of temperate habits, and accustomed to sit closely at needlework. She had suffered from ill-health for nearly three years, too profuse menstruation being her chief ailment. The pain in the loins she first noticed about three months ago, and it was soon followed by gradual browning of the skin. Since then, the weakness had been progressively increasing.

Subsequent progress.—This patient remained under Dr. Burrows' care for nearly two months. During that time, no very marked change in the colour of the skin took place; at times it was thought that the tinge was less, and then again it would appear to be increased. With variations as to intensity, the pain in the loins also continued, and now and then there would be a degree of tenderness over the painful part. The other symptoms remained much as described. The urine was repeatedly inspected, and nothing abnormal observed. Menstruation, very slight in quantity, continued with but short intermissions the whole time. The treatment pursued consisted in the use of chloric ether and hyoscyamus, together with a nutritious diet. For the first few weeks she was kept in bed, where she felt much less of the giddiness and pain ; subsequently, however, she was allowed to be up, and used to walk in the Hospital square. Her strength and general health considerably improved, but she remained up to the date of discharge liable to the attacks of giddiness and "weak feelings."

Termination.—She left the Hospital on July 7. Some months afterwards, it was ascertained that she had since died at her home. No autopsy could be obtained.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

THE PURTON UNION HOUSE.

BRONZED SKIN—DEATH—AUTOPSY—DISEASED SUPRA-RENAL CAPSULES.

(Communicated by R. HALL BAKEWELL, Esq; formerly House-Surgeon to the Middlesex Hospital, and Staffordshire General Infirmary.)

A MAN whose age could not be ascertained, but who seemed about 27 or 28, was admitted into the Purton Workhouse, and died in a few minutes after admission. I was called to him, but found him already dead.

The only history obtainable was very imperfect. It appeared that for about three weeks previously to admission, he had been an inmate of another workhouse, that a few days before his death he left, and applied for out-door Medical relief in this Union. He applied to one of the Medical officers, complaining only of constipation which he stated had existed fo six days. He was ordered a cathartic. Two days afterwards, (on the morning of his death,) he was again seen by the Medical officer, and found to be in rather a low, weak state, with brown tongue, etc. He was ordered stimulants, but there did not appear to be anything to prevent his being removed to the workhouse in the afternoon, and he was accordingly sent there. It appears that during the journey (a distance of four miles) he became rapidly worse. He was perfectly rational and sensible a few minutes before his death.

Post-mortem examination, four days after death.—Weather cold; decomposition had not apparently commenced. On removing the covering from the body, I was at once struck with the remarkably brown or bronzed appearance of the whole body, especially about the thighs. But the master of the workhouse who accompanied me was the first to exclaim, "How very brown he is!" The body was well covered with fat, the superficial layer over the abdomen being nearly an inch thick.

Thorax.—The lungs were exceedingly emphysematous, but from want of time were not further examined.

Heart.—The pericardium contained about ʒii of clear fluid. The right side of the heart externally was covered with fat, the left being nearly free from it. The right auricle and ventricle, were both completely filled with a firm white coagulum of fibrin, which extended also up the pulmonary artery. Sigmoid and tricuspid valves healthy. The muscular substance was in a state of (apparently) advanced fatty degeneration; near the apex no muscular substance was visible to the naked eye on the left side.

Abdomen.—The liver was considerably contracted and indurated; the capsule in several places thickened and opaque.

Spleen.—Somewhat softer than usual. Stomach contained about half-a-pint of half-digested food. Small intestines contained chyme.

Kidneys.—Both healthy to the naked eye; capsules readily peeling; supra-renal capsules were both atrophied, and had undergone a species of calcareous degeneration. They were forwarded immediately to Mr. Hutchinson. (See Report of the Pathological Society, page 72.)

Remarks.—It is obvious that this case by itself proves nothing with respect to the connexion between bronzed skin and disease of the supra-renal capsules, as the condition of the skin might be caused by some of the other lesions observed; three important organs connected with the circulation or purification of the blood being diseased. Nevertheless, taken in conjunction with the other cases that have been published, it may fairly be considered as tending to establish Dr. Addison's conclusions.

Purton, Wilts, January, 1856.

FATTY DEGENERATION OF THE SUPRA-RENAL BODIES IN A YOUNG INFANT.

(Communicated by Mr. GRIMSDALE.)

THE particulars of an interesting case have been forwarded to us by Mr. Grimsdale, the Lecturer on Diseases of Children at the Liverpool Royal Infirmary, in which the supra-renal capsules were found in a condition of fatty degeneration in an infant a few days old. The observation was made some time ago, and in ignorance of Dr. Addison's theory. It does not appear that any altered colour of the skin was noticed, and, in the extreme paucity of pathological data, as to the various alterations in these bodies compatible with life, it would be premature to infer that the state of the supra-renal organs had anything whatever to do with the infant's death.

The following are the abbreviated particulars of the case:—A healthy, plump, well-formed, female child was born at the full time, and appeared quite well till the second day, when it was attacked by convulsions, which ended in death the following evening.

Autopsy, eighteen hours after death.—Surface much congested, without eruption; umbilical vein very large, and filled with clot. Liver large, and mottled throughout by congestion. Spleen large, but of good consistence. Thymus gland of usual size, and apparently normal. Lungs well expanded and healthy. Nothing worthy of note in the heart, intestines, or stomach. The brain was healthy, but there was a very thin clot surrounding the cervical portion of the cord for about three inches of its extent. *Kidneys* to the naked eye presented nothing particular, except some of the fine orange lines in the pyramids, which have been shown to be amorphous deposits of uric acid in the tubuli uriniferi, and which are certainly not very uncommon. Under the microscope, the tubes in the cortical part were found choked with fat granules; in the tubular portions also fat granules were discernible, mixed up with the lithic-acid deposit before named. Malpighian bodies destitute of fat. *Supra-renal capsules.*—These presented a very remarkable appearance to the naked eye. Externally they looked yellowish and nodulated on the surface, and to the touch were very firm. When cut into, the incised surface had a general yellowish appearance, but finely mottled with red. No distinction could be observed between the cortical and medullary portions. Under the microscope, the whole structure seemed made up of cells filled with fat globules. A careful microscopic examination was made by Dr. Inman.

The statement above, that no unusual colour was noticed in the skin, ought, perhaps, to be a little modified, inasmuch as, at the time of birth, the body was covered to a most unusual thickness with the ordinary white curdy matter, which adhered firmly, and required several washings to remove it. The skin underneath was "very purple."

JONATHAN HUTCHINSON.

(This Series will be continued.)

THE BRIGHTON HOSPITAL.

LIGATURE OF THE SUBCLAVIAN ARTERY FOR ANEURISM—DEATH ON THE TWELFTH DAY, FROM HÆMORRHAGE—AUTOPSY.

(Under the Care of Mr. BLAKER.)

THE following narrative, which is from the pen of Mr. Winter, the House-Surgeon to the Brighton Hospital, appears to need but little in the way of comment. The case is a very important and interesting one, though it can perhaps scarcely claim the epithet of "instructive." We learn from it little or nothing that might be made available in a future one of similar nature. It was treated, in every respect, according to the best rules of our art, and its unfavourable result was one, to prevent which no modification in the practice pursued could have effected anything. It can therefore be considered only as affording us another illustration of the danger *inseparable* from operations on the main arteries; and, as thus adding to the motives for the continued application of zeal and ingenuity to the discovery and perfecting of other and less hazardous methods of treating the diseases to which they are liable.

J. L., aged 59; admitted into the Sussex County Hospital on May 24, 1855. A spare-made man, with contracted features; bones small, chest narrow, clavicles much arched. Has a pulsating tumour beneath the acromial end of the right clavicle, and extending into the axilla, about the size of an orange. It feels hard and inelastic, and cannot be emptied by pressure; it is evidently beneath the pectoral muscles. The pulsations are synchronous with the heart's action, and stopped by pressure on the subclavian artery. On auscultation, a double bruit is distinctly audible. He complains of great pain, both in the tumour and extending down the arm, which is partially paralyzed.

History.—By trade a haybinder; from Henfield. Has gene-

rally had good health. About two years since, while employed as above, he felt a sudden pain in the right shoulder, but not sufficient to cause him to discontinue his work. From this time he was always subject to pain, which he considered rheumatic, in that shoulder. About nine months since, he first perceived a swelling in front of his shoulder, and from that time it has continued to increase in size. He then consulted Mr. Morgan, of Henfield, by whose advice he applied for admission into this Hospital. Previous to the time mentioned above, he had several times injured his right arm by falls. His general health is not good. He appears worn down with pain and defective nourishment; he does not appear, however, to suffer from any other definite disorder; bowels regular; tongue clean and moist; pulse 70, and full and soft in the left wrist, in right much more feeble. Although the nature of the complaint was clearly aneurismal, it was not considered well to perform any operation until his health had improved. He was given ordinary diet, and allowed to take moderate exercise in the air, using a spirit lotion to the tumour as a *placebo*.

June 25.—His health having very greatly improved, and it being the universal impression that the tumour was increasing, he was brought to the operating theatre at 1·30 p.m., his bowels having been previously well opened with ol. ricini.

The skin of the neck having been drawn down over the clavicle, Mr. Blaker made an incision, about three inches in length, upon that bone. Blunt instruments were then chiefly used, in dissecting down towards the subclavian vessels. The brachial plexus having been exposed was held aside by a silk passed beneath. It being found needful to obtain more room, the clavicular portion of the sterno-mastoid muscle was divided, and with it the external jugular vein. The border of the scalene muscle having been found, it was not long before the artery was brought into view. It was apparently healthy, and a stout ligature was passed under it by means of a simple aneurism needle. When tied, pulsation in the tumour, as well as at the wrist, was immediately stopped. The operation lasted seventy-eight minutes, and was performed without the use of chloroform. He was given 40 minims of liq. opii sed., and ordered to be kept on low diet; the arm wrapped in cotton wool. At 6 o'clock p.m., being very restless, he was given 20 minims more of liq. opii sed., which was again repeated at 10 p.m. No diminution in the temperature of the arm.

26.—Some slight degree of fever; pulse 100, full, bounding. Ordered Vin. antim. p.t. ♏ xv., tinct. digitalis ♏ xv., sp. ætheris nitric. ♏ xv., haust. salin. ℥j., 3tis horis. 6 p.m. The above medicine occasioned great nausea, and entirely reduced the exeessive action of the heart. 10 p.m. Liq. opii sed. ♏ xl., et haust. statim.

27.—The bowels not having acted since the operation, he was given pil. cal. c. coloc. ij., statim, followed by some castor-oil in two hours. Going on remarkably well. No diminution in the temperature of the arm.

July 3.—Has been kept on low diet up to to-day, and has continued to progress without a bad symptom. He is now allowed a little solid food, which he enjoys. In the afternoon, he complained of pain in the right side of the neck. 11·30 p.m. He awoke suddenly, and felt that the wound was bleeding. On examination, profuse hæmorrhage was found to have taken place; the blood was still oozing, but readily stopped on pressure being applied to the angle of the neck. He lost apparently about two pints of blood.

4.—He is much blanched by the great loss of blood, but is calm and hopeful; pulse 80, soft, but very compressible; bowels relieved by a simple enema. Lint dipped in ice-water was applied to the wound. He was given ice internally, and 10 grains of gallic acid every hour and a-half. Beef-tea and arrow-root. 10 p.m. Pulse 100, full, readily compressible. Pt. acid. gallic. c. tr. digitalis ♏ x.

5.—At 12·10 a.m., and at 5 a.m., had severe rigors. On two or three occasions during the night, there was slight hæmorrhage, but readily subdued by pressure. Countenance anxious; complains of thirst. The digitalis is given at intervals according to the pulse. 3 p.m. Had another rather severe attack of hæmorrhage.

6.—7 a.m. Considerable hæmorrhage.—During the day he had several slight attacks of hæmorrhage, but about 2 p.m. the blood came out with such force, that it was with great difficulty stopped by pressure; considerable dyspnœa; apparently sinking. A little before 5 p.m., he slightly rallied, but in a few minutes he relapsed, and died at 5·30.

Post-mortem, twenty hours after death.—The integuments having been carefully turned back, and the parts dissected away, the innominate artery with its bifurcation was exposed. The subclavian artery itself appeared in a healthy state nearly up to the ligature, when it was found to have sloughed, and a large opening to exist. On the distal side of the ligature, all the parts were in a sloughing condition. There was not more than a quarter of an inch of artery undilated between the sac and spot where the ligature had been applied. On dissecting further outwards, the aneurism itself was exposed, it was nearly spherical, and extended chiefly into the axilla, pressing likewise on the upper part of the pleura, which appeared to be its thinnest point. The two upper ribs had been partially absorbed. The sac contained a large clot, together with a considerable amount of fetid, grumous fluid, which was also found in the artery, as far as the ligature. On the proximal end of the ligature, there was a small unhealthy looking clot, and slight atheromatous deposit, which increased considerably on approaching the heart. The aorta and pulmonary arteries were much dilated, and the former thickly covered with atheroma. The heart was somewhat enlarged, and the valves thickened. The lungs and liver were healthy.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

ANSWER.

To No. 81.—Temperature of the Vagina after Parturition.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In answer to the query put by B.S., I forward the passage in which Dr. Hecker refers to the instruments he employed. I am, etc. The Translator.

"As regards the instruments I employed for my measurements, the use was at one time freely accorded to me of the normal thermometer, made by Greiner (which possesses a Réamur's scale, each degree being divided into ten parts), belonging to the Halle Midwifery Clinic, and used by Gierse and Bärensprung in their investigations, conducted there. Then, I possess myself a Celsius' thermometer by Greiner, divided into $\frac{1}{10}$ degrees, and I also employed a small Celsius' thermometer, divided into $\frac{1}{5}$ degrees, belonging to Dr. Bärensprung. In an exact comparison of these three thermometers, no noticeable difference was perceptible."

Medical Times & Gazette.

SATURDAY, JANUARY 19.

THE RUGELEY POISONINGS.

We stated in our last that we were in possession of many important particulars respecting the cases of alleged poisoning at Rugeley, in which suspicions of so grave a nature have unhappily fallen on a member of our own Profession. We invariably deprecate the practice of filling the public prints with the premature and exaggerated statements which are so greedily circulated in similar cases, and which gratify the curiosity of the vulgar, at the expense of justice and decency. But since the Rugeley case involves many details of novel and unprecedented interest, we think it right to record in our columns from time to time such particulars as are fully authenticated, in order that our readers may follow out each step of this mystery with interest and instruction.

It appears that Mr. William Palmer is a member of a very wealthy family, and is now in his thirty-fourth year or thereabouts. He was educated for the Medical Profession, was a pupil at St. Bartholomew's, received the Diploma of the College of Surgeons in 1846, and settled at Rugeley, his native place. He seems, however, to have paid more attention to the "turf," and to what are commonly called sporting pursuits, than to his own Profession, and to have confined his practice to his own family and friends. His name appears in the *London and Provincial Medical Directory* of 1851, and again in 1855, as that of one of the persons who had neglected to inform the Editor of that work of the nature of their qualifications; hence it has been hoped that his claim to be considered one of ourselves was not a just one. But his name appears in the List of the College of Surgeons; and we may suggest, in passing, that it will be necessary for the future to be cautious in assuming the existence of no qualification, merely because none is recorded in the Directory.

He married, in 1847, Anne, the natural daughter of Colonel William Brookes and Mary Thornton, his housekeeper. Colonel Brookes, who, after quitting the East India Service, took up his residence at Stafford, died in 1834, leaving considerable property, and more than one natural child. To Anne Thornton he bequeathed, by a will dated July 27, 1833, nine houses at Stafford, besides land, and the interest of 20,000 sicca rupees, for herself and her children, and appointed Dr. Edward Knight, a highly-respectable Physician of Stafford, and a Mr. Dawson, her guardians and trustees. To Mary Thornton, the mother of Anne, the Colonel bequeathed certain property, which was to pass to the daughter at the decease of the mother. Mary Thornton departed this life, it is said, while a guest at Mr. Palmer's house, in 1848 or 1849.

Now, although the will of Colonel Brookes would seem clear enough to any one who was ignorant of law, and although, in the present state of the law, as we are informed, it would be sufficient, yet it was discovered by the legal fraternity some years since, that the language conveying the bequest to Anne Thornton was not sufficiently forcible to convey it to her absolutely, but only to give her a life-interest in it; insomuch as at her decease it was liable to be claimed by the heir-at-law to Colonel Brookes.

Under these circumstances, there was nothing unnatural or unusual in the idea that Palmer should insure his wife's life, in order to protect himself from the inevitable loss which must ensue in case of her decease. And since her property consisted of seventeen acres of land, valued at between three and four hundred pounds per acre, besides nine houses, and the interest of the sicca rupees—probably altogether worth at least £400 per annum, upon which he had borrowed largely from his mother—there could be no doubt of his having such an interest in his wife's life as would justify insurance.

Accordingly, in January, 1854, he insured her life for £3000 in the Norwich Union, and in March, in the Sun for £5000; there was also an insurance in the Scottish Equitable for £5000. It appears that proposals for insurance were made to other offices, but there seems nothing unusual in this, for he might only have had in view to obtain the best terms, unless, indeed, such proposals were made after the full value of his wife's property had been covered.

To proceed: Mrs. Palmer died on September 29, 1854, under circumstances which we shall proceed to examine, leaving only one surviving child, a boy of seven years; and, as if to justify the husband in effecting an insurance, an action was brought within a month, by Col. Brooke's heir-at-law, to obtain possession of Mrs. Palmer's property.

Palmer brought up the Life Policies on the Sun and Norwich Union, on the 16th October, 1854, and employed Mr. Pratt, the Solicitor, to obtain the money from the offices. Mr. Pratt, who seems to have acted with entire *bonâ fide*, and the caution usual among lawyers, required to be furnished with evidence of the husband's pecuniary interest in his wife's life, took counsel's opinion in every step, and obtained the £8000 from the offices on the 6th February, 1855; strangely enough, the £5000 from the Scottish Equitable was paid through a banker, unknown to Pratt.

Now let us see what were the circumstances attending Mrs. Palmer's decease.

The unfortunate lady appears to have accompanied her husband's sister, Sarah Palmer, to Liverpool, on Monday the 18th September, 1854, and to have returned to her own home on Wednesday the 20th. When she came home she complained of illness, but yet was able to walk from the railway station at Rugeley to her own house, a distance of rather less than a mile. Her husband was not at home, but returned that evening. She took tea and cold meat, and went to bed early.

According to the evidence of Eliza Tharme, the servant, she complained between eight and nine next morning (Thursday, the 21st) of feeling ill, but not knowing what was the matter with her; and between eleven and twelve she complained of feeling no better, and of *having been sick*. In the interval she had taken tea, which was prepared by the servant Tharme, but administered by the hands of the husband. On Thursday and Friday the poor woman continued ill, and was waited on by Eliza Tharme and William Palmer. The symptoms, according to the former, were—that she was ill and vomiting, but complaining of no particular pain; and that she was purged a day or two after she came from Liverpool; but there is no account from Tharme, when, or how much.

On Sunday, the 24th, the deceased was seen by Mr. Bamford, a Surgeon, who appears to have been in practice before 1803, and to be 82 years of age. He found her in bed, labouring under nausea, and so much debility that she had great difficulty in giving him an answer. Palmer informed him that her bowels had not been moved for thirty-six hours. He gave her two pills and an opening draught. He requested that Dr. Knight, the Physician, of Stafford, her guardian, should be called in. He saw her with Dr. Knight on Monday, on which day he says she was "rapidly sinking," and again on Tuesday, when she refused to take any sustenance, which was the last day on which Mr. Bamford saw her alive.

Mrs. Matilda Bradshaw, a nurse, came to deceased on Monday, the 25th, and remained with her till her death. Sickness was the symptom of which deceased complained to her; everything made her sick; during the whole of the time, from Monday till the Friday, on which Mrs. Palmer died, the bowels were not acted upon; but on Friday morning she was purged up to the time of her death. She said her throat felt strained and sore from the vomiting. She took at intervals effervescing draughts prepared by the hands of Palmer, two or three times in the course of the day; they were apparently ordinary effervescing draughts, prepared by putting a white powder into a tumbler half-full of cold water. Mrs. Bradshaw tasted the wine and water, and everything else that the patient took, except these effervescing draughts. The matter vomited was discoloured water of a yellow hue.

Dr. Knight, of Stafford, saw Mrs. Palmer on September 25. She was then so exhausted that she could not describe her illness in a manner to be understood by him; but he learned, *from her husband*, that she had caught cholera at Liverpool and had had distressing vomiting, griping, and purging, and he witnessed distressing retching. Dr. Knight, relying upon the information given by Palmer, thought the case one of

summer cholera, prescribed prussic acid, to be taken immediately, and waited two hours in Rugeley to hear the result; then he took his leave, with the assurance, from Palmer, that he should be sent for again if the patient was worse.

Mr. Thirlby, druggist at Rugeley, said to have been formerly Assistant to Palmer, made up a prescription of Dr. Knight's for an effervescing powder, on Tuesday or Wednesday, and saw deceased on Thursday, when she was very feeble.

It appears that the draught presented by Mr. Bamford contained tartrate of potass, and the pill contained colocynth and a minute quantity of calomel; but Dr. Knight did not prescribe, neither did Bamford nor Thirlby administer, tartar emetic in any shape.

On the death of the poor woman, both Dr. Knight and Mr. Bamford certified that the cause of her death was cholera. Upon this, as we have said, the Insurance Offices paid the sums for which her life was insured, and the whole matter seemed at an end. But in August, 1855, Mr. Walter Palmer, brother of William, whose life had been recently largely insured for William's benefit, died suddenly; and in November, a Mr. John Parsons Cooke, with whom William Palmer had peculiar sporting relations, also died suddenly at Rugeley, under very suspicious circumstances. The inquiries made respecting the death of Cooke, and the existence of suspicions and inquiries respecting Walter Palmer, led to further inquiries as to the death of Mrs. Palmer, and, in consequence, her body was disinterred, and was examined on the 22nd of December, 1855, by Dr. Monckton, of Rugeley.

Notwithstanding the length of time which had elapsed since death, Dr. Monckton was able to verify the absence of organic disease of the contents of the chest and abdomen, and the absence of anything like emaciation, and the presence of fæcal matters in the bowels.

The chief viscera being forwarded to Dr. Alfred Taylor and Dr. Owen Rees for examination, those gentlemen made a report which will be found at length in another page; the purport of which is, that there was no disease of the viscera such as would have accounted for death; but that antimony in a soluble form was found in the stomach and rectum; and that antimony was found in the rectum, and in the gall-bladder, liver, heart, lungs, and spleen, as well as in the bile and blood.

When Dr. Knight heard this, he retracted his former opinion, that Mrs. Palmer died of cholera, and gave it as his revised opinion, that the retching and exhaustion which he witnessed were the effects of antimony. Mr. Bamford, although treating the case as one of constipation for thirty-six hours, still maintained his opinion that she had died of bilious cholera.

If we may sum up the case in a nutshell, we may say—Here is a lady, who is sufficiently healthy to have her life very largely insured in January and March; who goes to Liverpool in good health on a Monday, and comes home on Wednesday complaining of *cold;* who is seized with violent vomiting next day, and with great exhaustion, but *no pain*, and *no purging* to signify; who, on Sunday, was seen by an aged Practitioner, who thinks her in danger; and, on Monday, by Dr. Knight, who also thinks seriously of her; who, on Tuesday, was evidently given up by Mr. Bamford, but yet who lingered on to the Friday; in whose body antimony was found in large quantities; on hearing which Dr. Knight repudiates his former opinion, that death arose from cholera,—and declares his conviction, that death was caused by antimony. Now, from all these facts, it cannot be wondered at that the Coroner's Jury were led to a verdict charging William Palmer with having caused his wife's death by the administration of that poison.

On the several topics suggested by the case, we must offer a few very short remarks:—

In the first place, the fact of the sudden and complete alteration of Dr. Knight's opinion as to the cause of death, is not a thing from which any particular credit will redound to the Medical Profession. We have still to be informed of the amount of vigilance exercised by those gentlemen in stating the nature of the patient's illness; what inspections took place of matters vomited and passed from the bowels; what inquiries were made as to previous treatment, during the days when Palmer had sole charge of his wife; what directions were given as to nourishment and nursing; in what way vomiting, with no purging, no cramps, and no pain, supported the theory that deceased was labouring under English cholera. We have heard that it was Dr. Knight who introduced Palmer to Anne Thornton, and brought about their marriage; and, therefore, it may well be supposed that he had implicit confidence in him. Still, medically speaking, it does seem to us unsatisfactory, that a young and healthy wife and mother should be allowed to depart this life with no more effort to save her than appears to have been made in this case.

In what way did Palmer explain to Bamford the fact that his wife had been ill with cholera for three days, and yet that no other opinion was sought till Sunday? How did Palmer explain to Dr. Knight the fact that, though he promised on Monday to send for him again, if his wife should be worse, yet that he never did send through the three entire days during which she continued to live, although the entries in his Diary show that she became progressively worse? Will any one of us allow that a young, previously healthy, woman is to be given up in despair at any stage whatever of English cholera short of actual dissolution? Had this poor woman been reduced to a skeleton by cancer or phthisis, we could understand such a thing; but to be well on a Wednesday, supposed to be rapidly sinking the next Tuesday, yet not sinking but surviving, and without Medical attendance, without a further effort to save her to the time of her decease on Friday—and this in a case of recent illness—to us it is incomprehensible!

The moral we draw is, the necessity for the greatest precision, for the practice of receiving no testimony with absolute confidence in matters on which ocular and physical demonstration is possible on the part of the Practitioner; and, more especially, the duty of giving no certificates whatever on hearsay evidence, not even on the statements of a fellow-practitioner.

In the next place, this seems to be the first occasion on which we hear of tartar emetic as a slow poison; and we may fully expect that this point, as well as the varied and apparently uncertain action of this substance as a poison, will be well handled by the gentlemen of the long robe employed in the defence. The public mind is not aware of the diversity of action of poisons according to the dose and circumstances of administration. For, 1st. An irritant poison may destroy life by its action on the glottis while being swallowed; 2nd. It may do so by its immediate effect on the stomach, or on the intestines; 3rd. It may pass from the stomach into the blood, and produce great diversity of effects by its operation on the organs to which it is carried, and with which it may possibly be incorporated; 4th. If the patient live on, it may again produce a fresh set of symptoms by its passage through the organs by which nature destines it to be eliminated from the body.

Now, in the cases in which tartar emetic has been recorded to have acted as a poison, the symptoms were those of the second order; vomiting and convulsions being the leading symptoms, both arising probably from the primary irritation of the stomach; as, for example, in the cases of the two children poisoned each by 10 grains, as reported in Taylor. But in the case before us, the second, third, and fourth classes of sym-

ptoms were each probably present in equal proportions. There were irritation of the stomach, poisoning of the blood, and exhausting efforts at elimination.

Then, again, while small doses in some persons, in some states of health, will produce dangerous symptoms, in other persons, in the same states of illness, immense doses produce scarcely any perceptible effect at all.

Then we may look with interest for the kind of proof which will be offered of the supposed fact that Palmer, and not any one else, did administer antimony. That tartar emetic was found among the other common drugs which he possessed, does not amount to much.

Here we must conclude for the present, with a passing glance at the strange complicity of the Postmaster of Rugeley with Palmer, through which Palmer was made acquainted with the contents of Dr. Taylor's reports, before they reached the Solicitor for the prosecution. From what we know of the prying habits of these gentry, we would say, always use the greatest caution in sealing a letter of consequence. There are many circumstances which we must comment on at the proper time; for the present we must be content with having given a sort of *ab ovo* account of part of these mysterious proceedings.

ORGANIZATION OF POOR-LAW MEDICAL OFFICERS.

Mr. Richard Griffin, who has deserved so well of the Profession by his fearless exposure of Poor-Law illiberality, has addressed to us another letter, which we publish this day, at page 69, and to which we beg to direct the particular attention of our readers. We learn that Mr. Griffin already anticipates a result which is but too probable, namely, that the Guardians of his district will find some means of getting rid of him; and, as they, perhaps, fear to take this step openly, they will effect their object by a side-wind manœuvre. In these circumstances, Mr. Griffin has appealed to the Poor-Law Board, which has not yet condescended to give him an answer. While deprecating, in the strongest terms, the paltry and illiberal conduct of the Poor-Law Board, and of the Local Boards, towards the Members of our Profession, we cannot but express, in still stronger language, our sense of the mean and paltry conduct of some recreant members of the Profession itself, who would sell their birthright for a mess of pottage, in other words, would sacrifice the interests of the Medical community for the mere purpose of serving their own interests, by accepting the miserable pittance of which their brother has been deprived. This treacherous conduct of part of our own fraternity is, we regret to write, at the root of the evil; and as long as we fail to unite together for our mutual interests, so long will Poor Law Boards and Poor Law Guardians insult and injure us. We earnestly invite the Poor Law Union Surgeons throughout the country to rally round Mr. Griffin, in his present unselfish and patriotic effort; and if they are only united, success will undoubtedly be the result of the struggle.

THE WEEK.

The opening of the campaign in the Crimea—unless Russia, as it is reported, unconditionally accept proposals of peace—will be contemporaneous with the opening of the new campaign of the Provincial Medical and Surgical Association. Recruits are wanted in both cases, and no doubt premiums will be offered to vigorous young men willing to enter the ranks. The Recruiting Sergeant of the Association, in the true style of the craft, calls upon members to enlist, and points to a "united Association tried and purified by free discussion—an Association combining the dignity and honour of age with the spring and energy of youth." Notwithstanding this glowing language, we are inclined to think that the battle of York and the amnesty of Birmingham have very sensibly thinned the ranks of the Association, and that a few more such victories will destroy it altogether. After what has been asserted on anonymous authority, in the pages of some of our contemporaries, about the evil and ruinous effects upon the Journal and upon the Association, of the "faction" and "conspiracy" of the Cormack "gang," it is refreshing to find it suggested on the respectable authority of Dr. Greenhill, that "probably all persons will admit (in general terms) that the (*Association*) *Journal* was improved under Dr. Cormack's management, while it is incontestable that his exertions, both as Secretary and as Editor, considerably reduced the amount of arrears of subscriptions, *and added several hundred members to the Association.*"

Another horrible murder has just been perpetrated in open daylight in the public streets of London. A wretched man was seen watching about the door of the offices of a respectable solicitor, named Waugh, on the morning of Wednesday last; and on the appearance of the latter, on his way to his place of business, the assassin coolly and deliberately discharged a loaded pistol at his breast, and he fell dead almost instantaneously. The murderer made no attempt to escape, and another loaded pistol and a knife were found upon him. It is a curious circumstance that, after having perpetrated this fearful deed, he evinced the greatest anxiety lest the second loaded pistol should be accidentally discharged. No adequate motive is assigned for this act; and, as far as a judgment can be formed at present, the case appears to be one of those, unhappily too common of late, in which the most atrocious crimes are perpetrated by irresponsible agents. The murderer seemed to evince none of those attempts to evade punishment, or to conceal his guilt, which would be expected in a sane person; and we fear that it will turn out that he is known to be of unsound mind, and, therefore, great blame will rest on those who allowed him to be at large.

We regret to find that the Court of Aldermen are at issue with the authorities of Bartholomew's Hospital, as to the right of way through the quadrangle of that Institution. We should be very unwilling to advocate any interference with public rights, established by immemorial custom; but it must be recollected, that that custom originated out of consideration for the public safety, in connexion with Smithfield Market. That Market being now abandoned, the danger disappears with it; and on every consideration it is most important for the interests of the Hospital, and especially of the patients, that the fine quadrangle should be held sacred for the exercise of the convalescent patients, without their being exposed to the temptation and danger of passing beyond the limits; and treating themselves to noxious stimulants outside the gates. Besides, to what extent would the public be damaged by stopping this thoroughfare? Only by the difference of distance between a diagonal walk across the square, and the distance of the angle formed by the south-east side of Smithfield from the Hospital gates and Little Britain. A paltry consideration! But, unfortunately, the Hospital authorities have felt it their duty to oppose the turning of the open space of Smithfield into a dead meat-market, etc. *Hinc illæ lachrymæ!*

The adorers of time-honoured customs were last week frightened out of their propriety by a well-reasoned article in a daily contemporary of some influence, recommending the consuming of dead bodies to ashes, in place of burial. The Journal reasoned the matter on sanitary grounds, and

called from classic lore the sweetest reminiscences wherewith to tickle the poetic fancy of dying mortals and surviving relatives, dispersing theological difficulties as by a zephyr, and luring the imagination by the gorgeousness of Dido's cineration, and the peculiar aptness of the ash-urn as a memorial of the dead; placing in contrast to these the vulgar custom of Egyptian mummyizing, whether of men or cats, and the loathsome system which could result in the scene attendant on the disinterment of Walter Palmer. In conclusion, the article prophesied that we should eventually come to adopt the style recommended. Now, at the present time, there is no doubt we are a sanitary-seeking people; forced to it, it is true, by the terrible periodical warnings of cholera. But we think no one would attribute to the "nation of shopkeepers," that we are a poetic people. It was after the Romans had become alive to sanitary matters, evidenced by their *cloaca maxima*, and other measures, that the custom became general of burning dead bodies; and even before that period, when they did bury, the body was placed in a coffin of stone, which is said to have consumed all the body, except the teeth, in forty days. But, without waiting for our poetic era to dawn, we are in possession of a plan which may serve, *pro tempore*, for the preservation of the living from the evil influences of the dead, and defer, for the present generation at least, the roasting, scorching, and consuming tendencies of Young England; and this is, the free use of charcoal as a stratum over every body that is buried. Its deodorizing properties have now been thoroughly tested; and, if we will not be a clean people by our own social arrangements, we trust that the Legislature will force us to do what, on every consideration, we ought to do for ourselves.

We are exceedingly sorry to find that the young Medical Student, whose exploits in wrenching off knockers we noticed last week, has again been figuring before the police-court, and in a manner rather more discreditable than on the last occasion. It now appears that since his contrition and the payment of a fine, he has been bullying a married lady to pay him a sum of money to defray his costs, under the threat of exposing her as the authoress of his foolish freaks. The result has been that the lady's husband, an officer in the army, has again brought him before the Magistrates, together with five other knockers which the defendant had lodged in the house of the lady. The very disreputable line of defence pursued was that the young man was instigated by the lady and her friends to deprive the Belgravians of their knockers —an imputation which the husband indignantly denied, and which the Magistrate very properly ignored, fining the defendant £5, with costs. We do not know with what school this young gentleman has the honour of being connected, but we cannot help remarking, that a strange laxity must exist in our Medical institutions, the Students of which are allowed to figure in this disgraceful manner in the public newspapers. Surely the teachers at our Medical establishments could exercise sufficient control over their alumni, if not to prevent such ebullitions of juvenile folly, at least to obviate the necessity of public exposure, by causing them to make such reparation as should be satisfactory to the injured parties. We have often deplored the want of collegiate institutions for our Medical Students; under the present system, or rather want of system, the Medical Student is thrown upon his own resources in this great Metropolis, where there is every encouragement for him to go astray, and very little inducement to keep in the right path.

Dr. Garrod, the Professor of Materia Medica at University College, has had a narrow escape from destruction by tasting some medicine containing belladonna leaves. It appears that Dr. Garrod had prescribed for a patient some infusion of the leaves of the ash (*Fraxinus excelsior*), but, by some mistake, the Druggist or the Herbalist had substituted the leaves of the *Atropa belladonna*, and the patient was consequently seized with alarming symptoms. Dr. Garrod, unable to account for this result, made upon himself the experiment of tasting the medicine which the patient had been taking, and swallowed nearly a wine-glassful of the infusion, the consequence of which was that he almost immediately fainted away, and was restored only by very active treatment. We are glad to learn that Dr. Garrod is now recovering; but for some time after the unfortunate accident he suffered from very disagreeable cerebral symptoms, among which one of the most prominent was a loss of memory.

REVIEWS.

Yellow Fever considered in its Historical, Pathological, Etiological, and Therapeutical Relations. By R. La Roche, M.D. 2 vols. Philadelphia, 1855.

The following extract from the Preface explains the object and scope of this work. In view of the number of valuable works upon the subject of yellow fever, "the author of the present volumes would surely have abstained from adding another, much larger than any of its predecessors, to those already in the hands of the Profession, had he not thought that a work embodying an historical summary of all the epidemics of that fever which have occurred in his native city (Philadelphia) at various times from 1699 to that of last year, as well as a *résumé* of our knowledge of the nature and causes, known or presumed, of that disease, such as it has appeared on those different occasions, might prove acceptable to Medical readers curious in such matters, if not to the Profession at large." He informs us also, that he "has neglected no opportunity of rendering himself practically familiar with the disease of which he had undertaken to become, as it were, the historian." Dr. La Roche has certainly accomplished a work of great labour and research, and in a manner which leaves nothing to be wished for. He has approached his subject in a philosophical spirit, and has succeeded in expressing, impartially and fully, and withal without that party rancour which has sullied some late discussions about yellow fever, both the facts and arguments by which his own views upon controverted points are established, and also those of his opponents. The Bibliography of the subject alone occupies forty-five closely-printed pages of the book.

We cannot be expected, from the limited space at our disposal, to enter at any length either into an analysis or criticism of these volumes; and shall therefore confine ourselves to noticing the statements and views of the author upon some points on the mere surface of the subject.

Everybody who has ever heard of yellow fever knows that one of the most marked and characteristic symptoms of the disease is the so-called "black vomit," which usually occurs in that adynamic stage which succeeds the well-known deceitful remission in the febrile symptoms. There are some who regard this symptom as pathognomonic of yellow fever. While admitting its frequency, however, and its great diagnostic importance in association with other phenomena, Dr. La Roche takes great pains to show that the vomiting of black matter is not confined to this species of fever, but that among several other affections it has been noticed even in the bilious remittent fever with which yellow fever is apt to be confounded. In some cases of true yellow fever the symptom may be wanting. Hence he concludes that he "cannot regard it as sufficient by itself to characterize the disease as the yellow fever, or coincide in sentiment with those who draw a line of demarcation between cases otherwise presenting the same or kindred phenomena, founded on the occurrence of the discharge in some, and its absence in others." Yet "black vomit occurs much more frequently in true yellow fever, than in any other form of febrile or other complaint. Indeed, though, strictly speaking, rather a peculiar termination than a symptom of the disease, since it does not occur till late in the attack, and even then only in a certain category of cases, yet

these, owing to the malignancy and usual fatality of the disease, are so numerous, and the occurrence of the discharge among them so common, that the black vomit may be regarded not strictly as pathognomonic of the disease, but as a highly useful diagnostic sign, so common that the word yellow fever brings up to the mind the idea of black vomit, and *vice versâ*," Vol. I. p. 278. He draws attention to the remarkable fact often noticed before, that this discharge is not incompatible with the continuance of muscular power, intellectual activity, self-possession, and courage, even when every other symptom portends approaching death; and instances several remarkable cases in proof.

From our familiarity with the description of the condition of the liver given by Louis, as presented in the fatal cases at Gibraltar, we turned, with some interest, to this part of the section on the Pathological Anatomy of the disease. The pale yellow, nankeen, buff, or straw colour of the organ, observed by him and other authors elsewhere, was also noticed in the recent dissections made in Philadelphia—not constantly, however, for sometimes various congestive hues were noticed, and sometimes the gland retained its healthy aspect. Gillkrest, writing of the disease in Gibraltar in 1828, states, that portions of the liver washed, pressed, or bruised in a mortar, did not give out colouring matter, nor was any trace of bile observable in the pores, and the same results appear to have followed the examination of the organ in Philadelphia. While this fact serves to show that the jaundiced aspect of the patient has not arisen from biliary congestion, another important series of observations have been made, which, if confirmed, will perhaps assist us in comprehending the pathology of the disease. Professor A. Clark, of New York, noticed that the liver of a patient who died from yellow fever in the Hospital of that city exhibited in a marked degree the microscopical characters of fatty degeneration. He put the question, "Is not the change so constantly observed in the livers of those dying of yellow fever an acute fatty degeneration?" "Scarcely a few months had elapsed," says Dr. La Roche, "since we had in this city the fullest opportunity of confirming the discovery of our very distinguished and accomplished countryman; for, in all the examinations made during the epidemic of 1853, the peculiar change in the liver, to which he called attention, was discovered. These examinations amounted to fourteen at the Pennsylvania Hospital. Several more were made at the St. Joseph and other Hospitals. In the summer of the next year (1854), the livers of those who died with the disease at the first of these establishments—six in number—were, in like manner, examined under the microscope; and *in every instance, without a single exception*, in both seasons, the results were the same. The number of livers examined was too large, the results obtained were too constantly the same, to allow these to be ascribed to mere coincidence," Vol. I. p. 404.

Our author admits, as others have done before him, that while the yellowness of the skin, etc., depends sometimes upon those causes of jaundice which are in operation in other complaints, yet that in yellow fever the discoloration "is occasionally of a different nature, and apparently unconnected with biliary obstruction and hepatic derangement, while it occurs in cases where no such obstruction exists, where the gall-bladder and ducts are free from the morbid state mentioned, and where the liver is, so far as can be discovered, either healthy or gorged with blood." In these cases, he thinks "the jaundice may be properly referred to some functional modification of the liver, the nature of which cannot be discovered on dissection, which exercises its influence in arresting the elimination of the biliary element, whether those textural changes occur or not, and which precede the latter," Vol. I. p. 414. We would just, by way of suggestion, ask whether some alteration in the hæmatin of the blood corpuscles might not be a more probable source of the yellowness of the serum of the blood and tissues, in those instances where no cause of biliary resorption can be exhibited, and be a better hypothesis than that which is founded upon the physiological error, that the elements of the bile are merely separated from the blood by the healthy liver, just as urea, uric acid, etc., are by the kidney.

Pathologically, he concludes yellow fever to be a general and not a local disease. "The cause of this complaint, however it may have originated, is a special poison, which, having penetrated the system and entered the blood-vessels in a manner well known, is carried everywhere through the instrumentality of the blood. It produces in that fluid changes, to which attention was drawn in a former chapter, and others of a more intimate kind which escape the cognizance of our senses; and by means of the polluted blood occasions important morbid changes in some of the abdominal organs. It produces, besides, a morbid impression on the nervous centres; and these, as well as the former, in their turn, induce, by virtue of the numerous sympathies which bind together the various components of the system, diseased modifications in various organs and tissues, and shortly give rise to phenomena of a more or less peculiar kind, as essential to the manifestation of the fever, and varying somewhat in number and violence in different individuals and under different circumstances," Vol. I. p. 561.

Three-fourths of the second volume, or 626 pages, are occupied by the etiology of the disease; and of this, as might be expected, more than half is devoted to the question of the contagion. Dr. La Roche is a non-contagionist, but states fully and fairly both sides of the controversy. His readers are placed in a position thus to form an independent judgment. We have no doubt that the whole of this will be read with the deep interest that the question of contagion must ever excite in a commercial community.

Lastly, comes the great practical object of all our investigations—"The Treatment"—and this is just where we are so often baffled in applying our pathological knowledge, and driven to sheer empirical observation for a guide. And what does experience tell Dr. La Roche?—"It is evident that experience teaches the necessity of modifying the treatment of yellow fever according to a variety of circumstances. But while the propriety of such modifications is placed beyond doubt, experience teaches also, that, notwithstanding all that has been written on the subject, and the ample opportunities for observation afforded by innumerable epidemics, our progress within the last three-quarters of a century towards anything like a satisfactory treatment of the disease in its various formidable shapes, has been far from gratifying. The fever when severe continues to produce its usual havoc; and, on comparing the remedial plans in vogue now-a-days with those suggested by our forefathers, we do not find them to differ materially; or, if they do, to be attended with much better success," Vol. II. p. 630. "Such being the case, we are forced to content ourselves with treating the prominent symptoms as they present themselves, and leave the rest to the reparative powers of the system," p. 631. Nevertheless, upon the question of treatment Dr. La Roche enters at length, discussing the value of each of the remedies proposed, and the circumstances under which it is applicable.

There is no doubt about the fate of this elaborate treatise. It is destined to be a standard authority upon all matters of fact or opinion recorded up to the date of its publication, and to be consulted by all who, from their sphere of practice, are brought into collision with yellow fever.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, January 14, 1856.

SIR,—There is no great news in France. The Académie de Médecine has been engaged for many meetings, until a few days ago, in a discussion on exutories, and on the theory of revulsion. Those who were aware how little is known by the most distinguished members of that learned body, as regards the principles of physiology, have had a good opportunity of collecting many proofs of their opinion. The Academy, in a long discussion in 1853 and 1854, had already proved to Europe how ignorant its members are of microscopy: the recent discussion shows that they are still more ignorant of physiology and of general pathology. It is to be hoped that the Academy will leave entirely these fields of science, and pass to a discussion upon some important practical points, about which the truly great knowledge of its members will make it regain a part of the consideration it has lost by theoretical or scientific discussions.

Feeling that the discussion upon exutories has not thrown much light on the subject, the Academy has proposed to give

a prize to the best essay on the influence of this mode of treatment. The essays must be sent before March 1, 1857; the prize is to be 1000 francs.

Professor Sédillot, of Strasbourg, has presented to the Académie des Sciences the history of a curious case of aphony, with immobility of the tongue, in which the treatment by galvanism has been successful in a very short time, although the paralysis had existed twelve years. What is very remarkable in this well-authenticated case is, that there had been no atrophy of the muscles of the larynx and tongue, although they had been deprived of action for twelve years.

An interesting case of pleurisy, recorded by Dr. Boinet, has been communicated to the same Academy. A lady, upon whom Professor Trousseau had performed thoracentesis twice, for a collection of purulent liquid in the right side of the chest, was almost dying, when Dr. Boinet, after a third thoracentesis, injected an iodine solution (50 grammes of tincture of iodine, 50 grammes of water, and 2 grammes of iodide of potassium). This solution was left in the pleural cavity six or seven minutes. The lady recovered very quickly, and she is now quite well.

Dr. Marchal (de Calvi) has presented to the same Academy a paper on poisoning by essence of turpentine. He thinks that, when a person is poisoned by emanations from fresh paint, it is not the white lead nor the white zinc which causes poisoning, but the essence of turpentine.

Dr. Boudens has communicated to the same Academy a paper on the relative value of disarticulation of the knee and amputation of the thigh. He states that, according to his extensive practice as a Military Surgeon, and to his survey of the practice of others at Marseilles, Toulon, Constantinople, and the Crimea, the disarticulation of the knee is much safer than the amputation of the thigh.

Some interesting statistical accounts have recently been published by the *Bureau des Longitudes*:—

The number of births in Paris during the year 1854, has been 36,464, of which 18,381 are boys, and 18,083 girls. There have been 2603 still-born children, of which 1465 are boys, and 1138 girls.

The number of deaths has been 40,968, of which 20,620 are males, and 20,348 females; so that the total number of deaths exceeds by 4504 the number of births. Cholera has been the cause of the excess of deaths. More than 9000 persons died of cholera in 1854.

According to M. Mathieu, a distinguished member of the Académie des Sciences, the mean duration of life has gained much in France in this century. Before the Revolution of 1789, it was $28\frac{3}{4}$ years; in 1817, $31\frac{8}{10}$ years; in 1834, 34 years; and in 1852, $36\frac{7}{10}$ years.

According to this last census taken in France, its population, in 1851, was 35,783,000. In 1852, the number of births was 965,080, and the number of deaths 810,695. The increase of population, therefore, was 154,385.

The number of male births exceeds that of female, almost in the same proportion in the southern and the northern parts of France. In the south of France were born during thirty-six years (1817 to 1852) 2,511,714 boys, and 2,373,308 girls. The proportion is, therefore, 10,583 boys to 10,000 girls. In the north of France were born during the same thirty-six years, 2,521,286 boys, and 2,374,181 girls, and, therefore, 10,620 boys to 10,000 girls. This shows that elimate has no marked influence, in France, upon the relative number of births of different sexes.

For all France, during thirty-six years (1817 to 1852), the number of births of boys has been 17,951,001, and the number of births of girls has been 16,920,848. The relation between these two numbers is almost equal to $\frac{17}{16}$.

Out of the 86 *départemens* of France, there have been 27 in which a few annual exceptions, during thirty-six years, have taken place as regards the relative number of births of boys and girls. The number of girls has been greater than that of boys. It is remarkable that this exception to a law which proves good all over the world, has taken place almost exclusively in the poorest parts of France.

M. Mathieu points out a curious fact, which is, that the relative number of births of boys has been decreasing during the thirty-six years from 1817 to 1852. For the first eight years—from 1817 to 1824—there have been 10,654 boys to 10,000 girls. The average of the thirty-six years is 10,609 boys to 10,000 girls, and for the last eight years—from 1845 to 1852—there have been only 10,545 boys to 10,000 girls.

The average for the thirty-six years between 1817 and 1852, the number of births in relation to the population has been as 1 to 34, and the number of deaths as 1 to 41. The number of births has been to the number of deaths as 100 are to 84.

GENERAL CORRESPONDENCE.

ORGANIZATION OF POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Through the medium of your columns permit me to address the Union-Surgeons collectively, and to inform them that I have sent a letter to one of their colleagues in each Union, requesting him to call them together; and that, should he fail to do this within a fortnight, I trust some one else will act in his stead, as it is desirable our arrangements should, if possible, be made before the meeting of Parliament. I have received letters from Surgeons of standing in the Profession, which encourage me to persevere; and I hope the seven hundred to whom I have written, will respond to my call, and place their brethren in a position to lay their grievances before Parliament. On looking over the report of the Convention, held in 1850, (kindly sent me by Mr. Lord, of Hampstead,) I find there were at that time three millions of poor persons receiving relief; in addition to these, the Medical man has to attend a vast host of labourers and their families, and most of the wives and children of the soldiers and sailors who are abroad. Clubs in towns have proved a complete failure, and are but scantily supported in most rural districts. Thus the recipients of Medical relief from that source are also thrown upon the district Surgeon. In eight hundred returns made to the Convention it was found that in rural districts, where horses are imperatively necessary, only 2s. 7d. per case was paid; in towns the payments averaged 1s. $6\frac{3}{4}$d. per case. The Convention Report affords no data of the length of time each patient continues on the books: as far as my individual experience goes, the average is five weeks; and the medicines alone, if the patients were in Hospitals and Dispensaries, would be double the amount.

Can it, then, be matter of surprise that Medical men so often fall into distress? or that, after struggling on through a life of labour and privation, they leave their wives and children destitute? In some districts Medical Officers are, perhaps, fairly paid, but these form an exception to the rule, and are too few in number to warrant us in relaxing our endeavours to ameliorate the condition of the more numerous and less fortunate. It is said, "Why not throw up these worthless appointments?" Because, in country districts, the result would be the introduction of a stranger into the centre of a practice; and, therefore, the office must be retained at any sacrifice. Of this the Guardians are as well aware as ourselves, and of this they take advantage to grind us down to the most niggardly pittance, regardless of consequences. In towns the case is different; there changes are perpetually occurring; in Weymouth, for instance, four Medical men have in succession held my office during the last six years, and frequent alterations have been made in the divisions of districts, proving that a system must be defective which requires such continual amendment. Our services never have been equitably remunerated, indeed to effect this would require an increase of at least three quarters of a million annually, a large sum in appearance, but only reasonable, if the amount and importance of the duty performed are taken into consideration. As a case in point, I am receiving £35 per annum, for attending 500 patients; at the lowest calculation (5s. per head,) I ought to have £125, and mine is by no means the worst instance that might be adduced. If we remonstrate, the Guardians reply by enumerating the additions we receive for Vaccination etc., conveniently forgetful of the extra labour required for the performance of these duties, and the utter inadequacy of the pittance they dole out to us in payment for them. I have reason to believe an attempt will be made to displace me from my office; but I heed this as little as the course pursued by two Medical men of my own neighbourhood, who have written to the Guardians, to repudiate all connexion with this move-

ment and with Mr. Griffin, and to compliment them on their conduct. This may personally injure me, and for their sakes and ours, I do regret that, not satisfied with remaining passive spectators of our contest, they should have volunteered a step which may weaken a cause in which so many are interested. Allow me to repeat, that justice never will be done us, unless, as a body, we demand it of Parliament. No Poor-law Board will, I fear, ever venture to make that addition to our salaries, which we have a right to expect, and which common equity demands, until the sense of the House of Commons be strongly elicited on the subject.

Let not the Union-Surgeons be dismayed at the apathy of some, or the open opposition of the few, who, from selfish motives, prefer the favour of a Board of Guardians to the welfare of their brethren; let them ask themselves if their present position is one in which they ought to be content; the many instances in which Surgeons have sunk impoverished and discouraged to the grave, and left destitute wives and families to the benevolence of the public, should urge us to every exertion that may save others from falling into the same lamentable state; and the honour of a learned and liberal Profession, insulted by the miserable remuneration offered for inestimable services, should rouse us to a hearty co-operation in the only step that can lead to effectual redress—a speedy organization. We have justice on our side, and the mighty aid of the Medical press; we shall not seek in vain the help of our extra-official brethren; the circumstances of the time are most propitious. If my appeal is neglected, it will, I think, be long ere another man will be willing to apply himself to the herculean task of arousing them from their lethargy, and to incur odium and injury in their cause. Fearless of either I shall persevere as long as I have any encouragement to do so; but my efforts will be vain, unless those for whom they are made, organize speedily and act decisively.

I am, etc.

12, Royal Terrace, Weymouth, January 14, 1856. RICHARD GRIFFIN.

THERAPEUTIC PROPERTIES OF ERGOT OF RYE.

[To the Editor of the Medical Times and Gazette.]

SIR,—The "ergot of rye" being a medicine extensively used in obstetric practice, both as a stimulant in labour, and a remedy in hæmorrhagic cases, is one of great practical importance, and yet it is much to be regretted that in the present state of our knowledge concerning it, we possess not (as far as my knowledge at least goes) any exact or well defined ideas of its actual therapeutic powers. Its physiological effects seem to be very indistinctly apprehended, so that its employment appears very much to be regulated by merely empirical notions. Like most men engaged in extensive obstetric practice, for many years I have used it very often, but with such various results, that I confess I have a difficulty in giving a very satisfactory opinion of its powers and general value; that it possesses the power of exciting uterine contraction is agreed on all hands, but what the nature of this contraction is, is a point which appears to me very desirable to have settled.

If the contractions excited by its exhibition were of a perfectly natural kind, so that its use as a stimulant in labour rendered the Practitioner sure that he was merely assisting nature, in the natural process in which she is engaged, or if in a case of hæmorrhage he was perfectly certain that he was only prompting to the natural action employed for the suppression of hæmorrhage; if, I say, these were the accustomed effects of the ergot, then, there could be no room for questioning its high value in the list of our Materia Medica. In such case, all fears as to any collateral dangers in its use would hardly deserve attention. But is this the case? Are the contractions excited, and the state induced thereby, to which some writers give the appropriate cognomen of "ergotize," anything which we can call natural? rather does not the contrary of all this hold good? I believe an affirmative to the latter question to be the truth, and in this I expect I shall be sanctioned by the concurrent testimony of the majority of the members of the Profession, who have had much experience of the ergot. The labour pains induced by the ergot are too continuous, strong and altogether so tetanic, that they cannot by possibility be mistaken for natural pains, while the contractions induced in cases of hæmorrhage are so variable, so partial and uncertain, that it has often seemed to me to be followed by an increase rather than a diminution of the discharge sought to be stopped. In fact, I believe the almost invariable effect of the ergot is to produce contractions of this kind. I am compelled to characterize them as uncertain, partial, and irregular, and hence unsatisfactory. Much discrimination is therefore necessary, in order to avoid doing mischief with it; so that I confess, during the latter years of my practice, I became very cautious, if not afraid of it altogether, for I have often given it in repeated doses, without any effect at all following; at other times, a small dose, such as a scruple of the powder, was followed by the most powerful contractions; sometimes the pains have appeared so partial and irregular, that the uterus grasped and retained the child, rather than propelled it forward towards the os externum, inducing a dry state of the vagina, and œdema of the labia, obstructive and perplexing, rather than helpful to the labour, while occasionally it has acted well, quickly terminating the process, which, before its exhibition, appeared as if hours would be required to complete it. In the midst of all this, it seems very desirable to ascertain whether there be indications by which the Practitioner may be regulated in his employment of this active agent. But having already occupied so much of your space to-day, I cannot enter further now upon this question, but, if permitted, may take it up in another communication soon, giving the result of my experience, which may serve to a certain degree as a guide to my junior brethren in the Profession, for whom I desire to write. I am, etc.

Colchester, January 8, 1856. DAVID MORRIS.

BOURNEMOUTH.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your paper of the 17th of November last, is a notice of Bournemouth, which we have only just seen. The extraordinary salubrity and rapid increase of this delightful place render it important that any statement respecting it, appearing in your valuable periodical, should be accurate, and convey a correct impression to the minds of your readers.

The inference which would be drawn from the perusal of your article is, that the water of the little rivulet, known as the Bourne, is polluted by sewage; that, thus polluted, it is used by the inhabitants for drinking and culinary purposes, and that, consequently, if health or pleasure seekers would avoid the evils known to exist from this cause in many large towns, they must avoid Bournemouth. Now, the facts do not in the least degree warrant such an inference.

We have for several years had the management of the Branksome Estate at Bournemouth, through which the rivulet in question runs for two miles; and the Sanatorium for Consumption, mentioned in your article, has been erected on ground granted by our clients, the owners of the estate. We are, therefore, deeply interested in all that affects the welfare of the place, and are most desirous of removing any defects, and of increasing all the existing advantages which it possesses.

Between the Branksome Estate and the sea, for a distance of about a-quarter of a mile, the rivulet runs through the land of Sir George Gervis, who is equally anxious with ourselves to preserve its purity. When the Westover Villas were erected, an efficient sewer was made. It runs parallel with, but does not empty itself into, the rivulet, until the latter reaches the shore. We have been most studiously careful to prevent the pollution of the rivulet in its course through the Branksome Estate, and for this purpose have made another sewer, which receives the drainage of the houses erected beyond the Westover Villas, and is connected with the sewer belonging to Sir George Gervis. The waters of the stream are thus kept perfectly pure, until within a few yards of high-water mark; and no one would think of taking water required for any purpose below the spot where the sewer and the rivulet are connected. It should also be remembered that this sewer is not like a London sewer, but that it receives the sewage of only a few houses, and consequently its effect upon the water, even close to the spot where it joins the rivulet, is imperceptible; so that no one watching the little brook, as it traverses the shore, would for a moment suppose that its waters had received the contents of any sewer at all, however small. In fact, we believe that very few visitors at Bournemouth are even aware of the fact.

We do not dispute that it would be an improvement to carry the sewer further out into the sea, and we are happy to

be able to add, that this, and other improvements, will soon be effected, as it is intended to apply to Parliament for an Improvement Act without delay. In the mean time, however, we fearlessly assert, that the salubrity of Bournemouth has not been in the least degree affected.

We are, etc. WINTER, WILLIAMS, & Co.

16, Bedford-row, January 9, 1856.

[We can assure our correspondents that we have no wish to detract from the well-deserved reputation of Bournemouth; quite the contrary. But we do affirm most positively: First, that the water of the Bourne is used by some of the inhabitants for drinking and culinary purposes. Secondly, that this water is utterly unfit for this purpose, as shown by the fact of its swarming with insects. Thirdly, that it is polluted by a sewer which opens into it just where it leaves the plantation, and enters on the beach, near the Belle Vue Hotel. Fourthly, that the place at which our informant, at several times in the month of September, and in the years 1854-55, saw water taken for purposes aforesaid, was about two yards above the point at which the said sewer discharges itself into the said rivulet. On the further points of the wastefulness of throwing away sewage where there is abundance of poor land to receive it; and, of the nastiness of emptying a sewer into a clear brook on a beach, or of carrying it into the sea, where people bathe, we will not further touch. We object to these things on general sanitary grounds, and noticed Bournemouth as a place where some of the old insanitary mistakes are perpetrated without excuse. We can only assure Messrs. Winter and Co., that we shall be equally ready when these grievances are redressed, to chronicle the fact.—ED. *M.T.&G.*]

APPOINTMENTS UNDER THE NEW VACCINATION BILL.

[To the Editor of the Medical Times and Gazette.]

SIR,—It is proposed in the new Bill for Vaccination, to let any qualified Surgeon perform the operation, and pay him for it out of the public purse. Many persons have taken office under the Poor Law at a low salary, in consequence of having the Vaccination of their district given to them. Indeed it is almost always named in an advertisement for a Union Surgeon. How are persons such as I have named, to be recompensed for their loss? I trust all such will immediately write to the Poor Law Board on the subject. Again, who is a legally qualified Surgeon? The Poor Law Board says, a Member of the College, and Licentiate of the Hall. In the place in which I reside, the certificates of Vaccination of a certain person were refused by the Registrar. He appealed to the Registrar-General, who decided they were to be taken. Yet this individual has only the M.C. of the Glasgow University. What that is, every one knows. I shall be glad to see some remarks of yours on the above. I am etc,

January 8, 1856. A UNION SURGEON.

[It is our decided opinion that the control of Vaccination should be taken from the Poor Law Board and transferred to the Board of Health. The Vaccination appointments are not *necessarily* connected with the Union appointments at present; and in case of the change now alluded to, the existing Vaccinators would not, in all probability, lose their places. On the contrary they would be in a better position.—ED. *M. T. & G.*]

SEAMEN'S HOSPITAL SOCIETY. — Report of patients admitted from the 1st of October to the 31st of December, 1855:—From Her Majesty's ships, 4; from British and Foreign merchant vessels, 498; on board the 1st of October, 145: total, 647. Now on board: sick, 145; convalescent, 3; fit for duty, 4. Discharged since the 1st of October, 491; number received since the first establishment in 1821, 75,405; out-patients relieved during the quarter, 375.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, JANUARY 8, 1856.

Dr. WEBSTER, Vice-President in the chair.

A PAPER was read

HOURLY PULSATION AND RESPIRATION IN HEALTH.

By EDWARD SMITH, M.D., LL.B., L.R.C.P.,
Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton, etc.

The author commenced his paper by stating, that having been engaged in various researches at the Hospital for Consumption, etc., Brompton, he had ascertained the hourly rate of pulsation and respiration in phthisis, with its relation to food, sleep, sunlight, etc.; and not finding on record any similar investigations in health, so as to be a basis for comparison with those in phthisis, undertook the present inquiry. The subjects were five members of his own family—viz., two female children, aged 6½ and 8½ years; two ladies, aged 33 and 39; and himself, aged 36; and the investigation extended over three days and nights, or seventy-two consecutive hours. The rate was ascertained in the recumbent position, after that posture had been maintained for some minutes, and due attention was given, to avoid various sources of error. In the paper, the rate is first considered absolutely, and then as influenced by the period of the day and food, and the whole is illustrated by tables and diagrams. The author gives the following deductions or inferences as opinions founded upon his observations:—The respiration is a most varying function, and especially in children, as is proved by the process of counting, and inferred by its subordination to vocal efforts, bodily exertions, emotions, and eating. The rate of pulsation in like manner varies greatly, but the ratio of the two functions is rather influenced by respiration than pulsation. While the varying ratio implies that neither function is dependent on its rate upon the other alone, it is evident that the circulation is greatly controlled by the respiration, and especially in children and sensitive people. This is proved by the immediate effect of yawning, sighing, shouting, and other momentary emotional respiratory efforts, and by the effect of mastication and deglutition. The young have less firmness of resistance to adverse influences, as is proved by the facts that the ratio of the two functions is the least in them, and is, at the same time, the most variable. Vital actions are at their maximum in the day, and their minimum in the night; and the action of the one and the negation of the other may be in excess or defect, and need regulation. Thus the action in the day may be in excess from great sunlight, and from too much and too often repeated food; or it may be variable by long intervals between meals; while the negation of the night would be too great if the food taken in the day had been in defect, or daylight had been absent. So the former may be in defect from absence of light, food, and wakefulness, and the latter in excess from the presence of these influences. Again, it is evident from the negation of the night, that night labour, whether it be study, bodily work, travelling, or marching, must be performed when the system is the least able to bear it, and consequently when it will be less efficiently accomplished, or performed with more wear of the system. Sleep is accompanied by a much lower state of the functions in the night than can be obtained during the day. Hence day sleep is less beneficial than night sleep; and, as the lowest state of the functions is not attained till the second or third hour of sleep, early retiring to rest obtains better sleep than rest sought in the early morning, when the rate of both functions is increasing. The system becomes charged with material as the meals are repeated during the day; hence with frequent meals, Nature calls for a less quantity and less stimulating and enduring quality of food in the latter part of the day. If no food be taken till the evening, the effect of that meal is inordinate. The absence of food in the night and the greater effect of the breakfast, added to the rapidity with which the effect of that meal passes away, imply that the breakfast should be

a good meal, and be followed by another within three or four hours. The duration of the effect of the dinner is due to the remaining influence of the preceding meal, as well as to the quality of the dinner food, and implies that a considerable time should elapse before another meal. In medical practice, we may decrease pulsation by darkness, day fasting, and the lying posture, and the food may be given in the evening, night, or early morning. We may increase pulsation by light, food, and the standing or sitting postures. An absolutely even rate is not attainable; but a low and tolerably uniform rate results from long unbroken fasting, and from the influence of night; and a high and tolerably uniform rate, from frequent moderate meals leisurely eaten. Animal food not only increases but maintains, for a longer period, the rate of both functions. The rate of both functions may be regarded in practice as identical from nine a.m. to nine p.m., if food be taken frequently and very moderately; but there is a great difference between the day and the night rate. A rising or rapid pulse after nine p.m. is unnatural, but an increasing rate after three, four, or five a.m., is natural.

The chairman said he had observed that food had considerable influence on the pulse. He knew one gentleman who from taking strong black coffee just before bedtime, had the frequency of his pulse greatly diminished, so as to produce a feeling like that of dying. The slowest pulse he had ever felt in a healthy person, was 28 in a minute, but he had heard of a healthy pulse as low as 22.

Dr. Snow regretted that the author had confined his investigation to so limited a number of persons, and thought that the result would have been different if he had included persons engaged in out-door labour, and children who ran about the streets. He could not think there was any material alteration produced in healthy persons by mastication and drinking. For himself, when in tolerable health, he could hold his breath for half-a-minute without altering the pulse. The weaker a person, the more liable was the pulse to be accelerated by trifling causes, except in consumptive patients, in whom the pulse was very nearly the same, whether they were sitting, lying, or standing. He remembered when young, counting his pulse after a severe day's exercise, and finding it 120, but on the following morning it was as low as 36.

Dr. O'Connor said he had observed in the fever Hospitals in Ireland, that death occurred much more frequently in those who lived on a vegetable, than those who partook of a mixed diet. He regretted that Dr. Smith had not extended his observations beyond his own family: and considered that the results he had obtained were of less value than the more elaborate details given in the middle of the last century by Dr. Bryan Robinson, and subsequently by Dr. Faulkner.

Dr. Smith said the chief design of his paper was to give the hourly changes of the pulsation, and he had extended his observations over the twenty-four hours, which he believed no other observer had done. Considering the nature of the investigations, the number of persons had been necessarily limited.

A paper was read

ON ATROPHY OF THE BRAIN;

WITH CASES IN WHICH THERE WERE REMARKABLE INEQUALITIES OF THE CEREBRAL HEMISPHERES, ATTENDED WITH HEMIPLEGIA, AND CONTRACTION OF THE LIMB ON THE SIDE OPPOSITE THE ATROPHIED HEMISPHERE.

By ROBERT BOYD, M.D., F.R.C.P., Physician to the Somerset County Lunatic Asylum.

(Communicated by Dr. MAYO.)

The author commenced his paper by alluding to the remarks of different writers, ancient and modern, on atrophy of the brain, more especially to Otto, Cazawvieth, Andral, and Cruveilhier, as well as to papers previously published by himself in the *Edinburgh Medical and Surgical Journal*, and he then referred to various cases of atrophy which had since fallen under his notice. Of the whole of the cases referred to as having been observed by himself, he stated that thirty-three were males, and thirty-one females; one male only was below 30 years of age, and of the other males, one-half were between 30 and 60 years of age, and the remainder above that age, the oldest being 84. The youngest female was 32; twelve were under 60, eighteen above, and the oldest 98. The average weight of the brain in the males was 43½ ounces; in the females, 39¾ ounces. The smallest brain in the males was 30½ ounces; in the females, 27½ ounces. The largest in the males was 52½ ounces, and in the females, 50¼ ounces. Atrophy of the brain occurred in about 4¼ per cent. of the cases examined by Dr. Boyd at the St. Marylebone Infirmary. In the insane, he had found it at least twice as frequent, and males of this class are very much more subject to it than females. Inequality in size between the cerebral hemispheres is common in epileptics. In thirty-one cases in the insane (twenty-one males and ten females), there was a difference of one ounce between the cerebral hemisphere in seven males and four females; of 1¼ ounce in one male; of 1½ ounce in five males and four females; of 1¾ ounce in two males and one female; of 2 ounces in one male; of 2¼ ounces in one male; of 2½ ounces in one male and one female, and of 3, 4, and 6 ounces in one male each; and in these cases there was either general paralysis, epilepsy, or hemiplegia, with contraction of the limbs on the side of the body, opposite to the atrophied hemisphere. The average weight of the brain in the twenty-one insane males, was 45½ ounces; in the ten insane females, 41¼ ounces. In ten males and four females, the atrophy was of the right cerebral hemisphere, and in nine males and five females, of the left. In one male and one female, the atrophy was general, and in one male, local, being confined to the optic nerve. Dr. Boyd also stated that, among thirty-two male and thirty-three female epileptics, at present in the asylum, there are four strongly-marked cases of hemiplegia and contraction of the limbs, and in one there is a manifest depression of the cranium, on the side opposite the paralyzed one. He concluded the paper by briefly describing the particulars of these cases.

The chairman believed that atrophy of the convolutions of the brain was much more frequent than the author had stated. In 298 cases he had found in 33 that the convolutions were distinctly atrophied and shrunken. He believed with the author that the event took place in about an equal number of men and women. In old females however, it was more frequent than in men. One of his cases was that of an old female 81 years of age, who had been 54 years insane; another was that of a young woman aged 18, who had been insane for a short period only.

Dr. Ogier Ward referred to the effects of pressure during birth upon the skull, and asked, whether, in any of the cases detailed, there was any considerable difference between the two hemispheres.

Dr. Peacock said that in one very marked case related by Dr. Boyd, he weighed the two hemispheres and found but very little difference between them; the whole of the brain being nearly thrown over to one side. In another case of a similar description, there was considerable contraction on one side of the body, with shortening of the limbs, and atrophy of the convolutions of the brain on the opposite side of the cerebrum; and in that case, the one hemisphere only weighed about a third of the other.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

JANUARY 1 (*concluded*).

Mr. ARNOTT, President, in the Chair.

DR. QUAIN exhibited for Dr. Black, of Chesterfield, a specimen of

PERFORATING ULCER OF THE STOMACH.

It had been taken from the body of a lady, aged 45, who had died after thirty-six hours' symptoms of extravasation into the peritoneal cavity. The final rupture appeared to have been occasioned by a sudden jolt while riding in a dog-cart when she "felt something give way within her," and immediately afterwards sank into collapse. She had been since early life subject to dyspepsia, chiefly marked by pain after food, and never attended by vomiting. At the autopsy, portions of the contents of the stomach were found in the peritonæum. There was a perforation of the stomach in the front of its upper curve, not far from the cardiac extremity. There was a sort of hour-glass contraction of the viscus, at a level with the ulcer, from previous cicatrization.

Dr. Black also showed specimens from a case of

MELANOTIC CANCER IN THE HORSE.

The animal had died with numerous tubercles of black deposit beneath the skin of various regions. Each vesicula seminalis

was dilated into a pouch, nearly the size of the urinary bladder, and containing a quantity of black jelly, which showed the microscopic characteristics of melanosis.

Dr. Bence Jones exhibited a specimen showing

GOUTY DEPOSIT IN THE KNEE-JOINT.

The patient from whom it had been obtained had died in St. George's Hospital, having long suffered from gout. The deposit was plentiful, in a white moist powder, perfectly free in the cavity of the articulation. It consisted, on analysis, of urate of soda with fibrin. Dr. Bence Jones stated that he was glad of the opportunity of bringing this specimen before the Society, as it illustrated an observation which he had made some years ago, and which he had alluded to in a discussion upon the subject at the Society's last meeting. Several observers had appeared inclined to doubt whether the deposit were ever found free in joints.

Mr. Hutchinson showed a specimen of

GLANDULAR TUMOUR FROM THE AXILLA.

The case, he remarked, was an important one, inasmuch as it had involved the commission of a grave Surgical blunder. A pale, cachectic man, aged 52, had been admitted under his care into the Metropolitan Free Hospital, on account of a tumour in the right axilla, which had all the ostensible features of cancer. It was of almost stone-like hardness, painful, but partially movable, and puckering in by its growth all surrounding parts. Tense bands of fascia could be felt dragged into its structure, and in several parts its margin was ill-defined. At first the skin did not adhere, but during the month the man remained under observation, it became involved, being then not in the least reddened, but puckered up by the adhesions, and assuming exactly the "saddle-leather" appearance usually so characteristic of cancer. The man's aspect was considered by all who saw him as a marked example of "cancerous cachexia." After a careful consultation with his colleagues, in which no doubt whatever was expressed as to the nature of the disease, Mr. Hutchinson determined to remove it. It was now becoming week by week more firmly attached to the deep structures, and its excision would very soon have become impracticable. In the operation a portion of adherent skin, a mass of consolidated glands the size of a turkey's egg, and eight other smaller glands not involved in the mass, were dissected out. The sheath of the vessels and part of the brachial plexus were laid bare, but no amount of blood was lost. The man had since done well. The tumour, when cut across for inspection during the operation, was believed to be scirrhus, though not a very marked specimen. In parts it cut quite crisply, and its section became somewhat cupped; its firmest parts, however, exuded very little juice. A subsequent and prolonged examination of the specimen, both by the naked eye and the microscope, had, however, led to the conclusion that it resulted only from the effects of chronic inflammatory induration, and did not possess any malignant structure whatever. The main mass consisted of four or five large glands, much indurated themselves, but imbedded in thick layers of fibroid tissue yet more dense. The man had suffered from nothing which could have been deemed the exciting cause; he had had no sore or abrasion on the arm or chest. About a year before the commencement of the disease, however, he stated that he had noticed a pea-like nodule, movable beneath the skin, over the mammary region. This could not be found when he came under care, but Mr. Hutchinson stated that as such a tumour had existed in two cases of primary carcinoma of the axillary lymphatics formerly under his notice, the account of it had tended somewhat to strengthen his erroneous diagnosis in the present instance.

Mr. Hutchinson also showed, on behalf of Mr. R. Hall Bakewell, of Purton, specimens of

DISEASED SUPRA-RENAL BODIES.

The patient, a man aged about 28, had died in Purton Workhouse, almost immediately after admission, and apparently in consequence of exhaustion induced by a short journey. He was fat and muscular. During his illness he had not been under observation until within three days of his death. On the post-mortem table all the bystanders were struck with the remarkable brownness of the skin. Both supra-renal capsules were found completely atrophied and reduced to fibroid tissue, in the middle of which were some calcareous concretions. *No trace of healthy structure was discoverable.* The case seemed fully to bear out Dr. Addison's views. (See "Hospital Reports," page 62.)

At the suggestion of the President, Dr. Wilks was requested to make a further examination of the organs, and report them to the next meeting.

After a vote of thanks to the exhibitors, the meeting adjourned.

MEDICAL SOCIETY OF LONDON.

Saturday, January 12, 1856.

Dr. Snow, President, in the Chair.

Mr. Hunt mentioned a case of lupus, treated with cod-liver oil. The patient, a young woman, came under his care in June last, with the face more or less scarred or ulcerated in every part, the integuments hypertrophied, and the nose nearly eaten away; the disease having existed for twelve years. He at first gave the patient small doses of arsenic, but, as they proved ineffectual, and the young woman complained of shortness of breath, he discontinued the arsenic, and ordered a tea-spoonful of cod-liver oil three times a-day. The ulceration was now healed, and the swelling greatly reduced, and he believed the patient to be in a fair way of recovery. Escharotics had been previously applied, but they appeared to have done more harm than good. (The patient was introduced for the inspection of the members.)

Dr. Routh said, that great redness still remaining was a proof that the case was not cured, and he believed that greater success would have been obtained by the combination of escharotics with cod-liver oil. In cases of lupus and nævus, the application of strong nitric acid, rubbed in forcibly with a piece of rag or paper, was very effectual. It destroyed a great deal of superficial skin, but the under-surface healed rapidly, and the offensive redness disappeared. He had also seen the strong solution of nitrate of silver applied with advantage. He wished to know why Mr. Hunt gave such small doses of cod-liver oil. Larger doses might be advantageously given; M. Cazenove allowed his patients to take as much as they would, even a tumbler full at a time. In the early stages of the disease, he (Dr. Routh) had occasionally given bin-iodide of mercury with iodide of arsenic.

Mr. Dendy thought the elements of the disease still remained in the patient. The effect of cod-liver oil was not local, but, he believed, entirely constitutional, and as such, the agent was invaluable. He always combined it, however, with iron, for the purpose of making it less nauseous. He regarded cod-liver oil more as a highly nutritious food than as a medicine, containing as it did the azotized elements, in a concentrated form, which enabled the system to resist disease.

Dr. O'Connor advocated the use of castor-oil for lupus, which he considered more a constitutional than a local disease. He also recommended Donovan's solution, a compound of arsenic, iodine, and mercury, which, however, he said, was rarely properly prepared, the white oxide of arsenic (which was insoluble) being used instead of the metallic arsenic. He thought that large doses of oil at the commencement had a tendency to disturb the stomach; and that it was best to begin with a teaspoonful.

The President referred to the fact that the Russians drink oil in large quantities, without any injurious effect.

Mr. Hunt said he had not found cod-liver oil so beneficial in any case of lupus as in the one he had brought before the Society. He had observed that external applications scarred more than internal treatment, and that the cases treated externally usually relapsed, and became worse than ever. In the Donovan's solution obtained from Apothecaries' Hall, he had found the arsenical properties so marked as to render it almost unmanageable.

Mr. Henry Smith exhibited a preparation taken from a child aged 3 years, who had died from suffocation. The child was recovering from an attack of strumous ophthalmia, and was observed, towards evening, to have a little hoarseness and wheezing. About twelve o'clock, the child's voice had changed in a very peculiar manner, and about five in the morning it died—it was thought of pneumonia. On a post-mortem examination it was found that the interior of the larynx was violently inflamed. There were diphtheritic deposits over the interior surface of the epiglottis, and a conspicuous layer of lymph below the vocal cords. The trachea

was not, as in ordinary cases of croup, lined with a false membrane; and, judging from the appearances, he thought the case was one in which tracheotomy should have been attempted. No treatment was adopted beyond that of a warm bath.

Dr. O'Connor thought that tartar emetic should have been administered.

Mr. Dendy mentioned a case in which a child died, as he believed, of apoplexy, but whose death was attributed to suffocation; and observed that it was impossible, without knowing all the symptoms in the case mentioned by Mr. Smith, to say what should or what should not have been done.

Mr. Henry Lee recommended the operation of laryngotomy in preference to tracheotomy in cases of the kind referred to. It was, he considered, safer and equally efficacious, there being no swelling below the vocal cords.

Mr. I. B. Brown said that a certain degree of hoarseness or loss of voice in children about 3 years old was usually the precursor of croup, and in that stage the disease might be easily controlled.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding his Returns of Sick for the week ending the 22nd December, states:—

That there has been a considerable increase of admissions under the head of frostbite, no fewer than 269 cases having occurred in the course of the week, owing to imprudent exposure on the part of the men during the intense cold which prevailed on the 19th and 20th. The thermometer having fallen nearly to zero, and the cold being accompanied by a fresh breeze from the north.

These casualties occurred from the direct effects of cold; one man imprudently lay down on his way home from the canteen, and was frozen to death.

Another, an artillery man, come off sentry, lay down on the guard bed, between two of his comrades, and was found dead some little time afterwards. He died so peaceably that his comrades, who were lying near him, were not aware that life was extinct, until they attempted to rouse him to take his next turn of duty.

The third man was found dead in his barrack-room, but the generality of cases of frostbite have been slight,—mere vesications of the ears or fingers from inattention; in some instances the men having neglected to lower the ear flaps of their fur caps, and in others, either wearing wet gloves, or going without them. In some cases the feet were affected from men going to sleep in wet boots; and one of the severest cases is in a half-witted lad who went out on the night of the 19th, without either shoes or stockings on.

The general health of the troops continues good; for these accidents had no reference to disease, as many of the men frostbitten were otherwise in perfect health; but the Land Transport has a heavy sick-list, and more than one half of the casualties which have occurred in the whole Army during the week have taken place in that Corps alone.

It is composed partly of natives, and partly of Europeans, many of them recently arrived in the country. The natives bear cold and fatigue ill, and the Europeans have not yet acquired the regularity and organization of soldiers.

The following abstract will show the comparative sickness and mortality between this and the preceding week:—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	173	16	156	8
Head Affections	2	2	7	—
Chest ,,	221	1	161	4
Diarrhœa	204	4	178	3
Cholera	12	7	23	17
Dysentery	41	—	31	1
Rheumatism	58	1	86	2
Frostbite	269	1	4	—
Wounds and Injuries	48	6	50	2
Ophthalmia	22	—	29	—
Other diseases	373	2	366	3
	1423	40	1091	40

The ratio of admissions to strength has been	2·77 per cent.
The deaths to strength	0·077 ,,
Exclusive of wounded	0·06 ,,
Ditto, exclusive of Land Transport Corps	0·35 ,,
Proportion of sick to well	6·50 ,,
Exclusive of wounded and injured	5·51 ,,

Dr. Hall thus reports, under date Dec. 31, 1855:—

The health of the Army continues very satisfactory; there is an absence of serious disease, and although the admissions under the heads chest affections and frostbite are numerous, it is satisfactory to know that the former are, for the most part, merely simple catarrhs, and the latter slight vesications of the fingers, toes, and tips of the ears. The few serious cases there are were all occasioned by exposure when drunk.

The Land Transport Corps does not enjoy the same health that the troops do, and more than one-half of the deaths which have occurred during the week have taken place in that corps alone. Under the head of fever, one-third of the admissions and two-thirds of the deaths were in the Land Transport Corps; that is, 65 out of 182 admissions, and 11 deaths out of 15, leaving only four for the whole Army, which is as great an exemption from serious febrile disease as can well be expected.

The diminution of bowel complaints in the Army is equally remarkable, and here again three out of the seven deaths which occurred took place in the Land Transport Corps. It is difficult to account for this disparity of health between this corps and the military, as they are as well fed and clothed as the soldiers, and of late they have certainly not been over-worked. Numbers of men have recently joined this corps, and as they get better organized, matters will doubtless improve. Nearly one-half of the force is composed of natives, not of the Crimea, but of Asia Minor, and other places, and they bear the winter ill.

The following abstract shows the admissions and deaths during the week, and those during the previous week:—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	182	15	173	16
Head affections	9	2	2	2
Pulmonic	279	0	221	1
Diarrhœa	117	3	204	4
Cholera	3	3	12	7
Dysentery	8	1	40	0
Rheumatism	44	2	58	1
Frost bites	98	0	269	1
Wounds and Injuries	72	4	48	6
Ophthalmia	37	0	22	0
Other Diseases	425	6	374	2
	1274	36	1423	40

THE RUGELEY POISONING CASE.

We subjoin the report by Dr. Taylor and Dr. Rees of the analysis conducted by them in the case of the deceased Anne Palmer:—

"On Monday, December 24, 1855, one of us (Dr. Alfred Taylor) received at the Chymical Laboratory, Guy's Hospital, from Inspector Ellis Crisp, a box containing three white jars, sealed and otherwise well secured, labelled 'Anne Palmer, Nos. 1, 2, and 3.'

"No. 1 contained the stomach and duodenum.

"No. 2 contained the large and small intestines (portions) and one kidney.

"No. 3 contained the liver, spleen, heart, and right lung (portion).

"No. 4, a packet, containing part of the lining of the shell, placed on the lid of No. 3.

"The seals were compared with an entire seal sent by Dr. Monckton. They were unbroken. The contents of the jars had obviously not been interfered with since they were first packed. The jars were securely locked up until Wednesday, December 26, when they were examined by us.

"No. 1.—The Stomach.

"The coats were firm and well preserved, considering the length of interment. Externally they presented nothing

remarkable, except a slight yellow streak near the greater end. This had the appearance of mineral matter in the coats, such as might be produced by arsenic or antimony on the inside of the stomach. When the stomach was opened a highly offensive gas escaped. There were no liquid or solid contents, but a thin pasty-looking substance, of a coffee-brown colour, was spread over the whole of the lining membrane. The whole quantity of this pasty matter on the surface of the stomach was estimated at about half a teaspoonful. The lining membrane presented slight patches of redness; but there was no ulceration, perforation, or organic disease of the stomach.

"No. 2.—Large and Small Intestines.

"The duodenum, part of the ileum, cæcum, and rectum, or lower bowel, were examined. They presented no appearance of disease. The small intestines were empty, but covered on the inside with a thin brownish coloured substance. The inner coat of the rectum, or lower bowel, was covered with a deep orange-red substance closely adhering to it. On removing this substance there was no appearance of ulceration on the surface, or of any disease. The intestines were, comparatively speaking, well preserved, like the stomach.

"The kidney enclosed in this jar was minutely examined, and found to be quite healthy.

"No. 3.—The Liver, Lungs, Heart, and Spleen.

"These organs were found to be in a healthy condition. They had undergone some changes as the result of putrefaction. The gall bladder contained bile, which was thickened to the consistency of a brown paste. The cavities of the heart were empty; the valves were firm and free from disease. The lungs and spleen were softened from putrefaction, but they presented no appearance of disease.

"CHEMICAL ANALYSIS.

"A chemical analysis, directed to the detection of mineral and vegetable poisons, was made of the following parts:—

"1.—The Brown Pasty Contents of the Stomach.

"They were found to contain, in rather large quantity, a preparation of antimony. A very minute portion of arsenic was also detected; but as arsenic was not found deposited in the viscera, and is an occasional impurity in ordinary tartar emetic, we consider that the presence of this poison in the stomach of deceased may have been owing to such impurity. There was no trace of any other poison.

"2. The coats of the stomach were examined, and yielded antimony.

"3. The large and small intestines contained antimony.

"4. The orange-red deposit on the rectum or lower bowel was removed and separately examined. Antimony was found in this, in larger proportion than in the stomach or other parts of the body. The colour of this substance was found to be owing to the partial conversion of the mineral to oxysulphuret of antimony, as a result of putrefaction. The coats of the rectum also yielded antimony.

"5. The thickened bile, removed from the gall-bladder and separately tested, yielded antimony in a proportion nearly as large as that found in the rectum.

"6 About 2 ounces of the liver yielded antimony in well marked quantity.

"7. The spleen contained antimony, but in a smaller proportion than the liver.

"8. The kidney contained a small quantity of antimony.

"9. Antimony was detected in the substance of the heart.

"10. Antimony was also detected in the substance of the lungs, but in smaller proportion than in the other viscera.

"11. The drainings of the jars Nos. 2 and 3, consisting chiefly of blood, were tested, and found to contain antimony.

"12. A portion of the lining of the shell and part of the dress of deceased were examined. They yielded no trace of antimony or of any mineral poison.

"In this investigation 15 different analyses were made, occupying us from the 26th to the 31st of December. No other poison but antimony was detected in any part of the body. The conclusions at which we have arrived from this analysis and examination are as follows:—

"1. That all parts of the body of deceased examined by us contained antimony. In the stomach and intestines the antimony was partly in a soluble form, while in the liver, heart, spleen, kidney, and lungs, it had been deposited as a result of absorption during life.

"2. The largest quantity of antimony was found in the rectum; next in the stomach and its contents; then in the bile taken from the gall-bladder; and the smallest quantity was found in the lungs.

"3. The presence of antimony in the contents of the rectum proves that the discharges from the bowels of the deceased contained antimony up to the time of her death; that she was passing antimony by purging when she died; and the presence of this mineral is sufficient to account for the vomiting or diarrhœa, or both, from which deceased is stated to have suffered.

"4. From the discovery of antimony in the contents of the stomach we infer that a preparation of antimony must have been taken by deceased within a few hours of her death.

"5. From the discovery of antimony in the stomach and intestines, especially in the rectum, we infer that the antimonial compounds, if not taken by deceased as the result of a series of accidents, were improperly administered to her either through ignorance or by design.

"6. That in our opinion the antimony found by us in the body of deceased has not been the result of one large dose, but of several doses, taken at intervals some days before death, and to within a few hours of her death.

"7. That the antimonial preparation taken by deceased was what is commonly called tartar emetic, and this may or may not have acted as a poison according to circumstances. It may or may not have been the cause of death. In the event of the existence of any natural cause for the illness of deceased, it may have accelerated her death by producing great depression and exhaustion of the powers of life.

"8. In the examination of the stomach, bowels, and other organs of deceased we could not detect any changes as a result of natural disease. There was nothing to account for death. On the other hand, there was nothing in these appearances inconsistent with the death of the deceased from frequent doses of tartar emetic.

"ALFRED S. TAYLOR, M.D., F.R.S.
"G. OWEN REES, M.D., F.R.S.

"Chemical Laboratory, Guy's Hospital."

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 3, 1856:—

Densham, William, Crediton.
Kelly, Hubert, Pinner.

Also, on Thursday, January 10, 1856:—

Kerr, Benjamin, Milnthorpe, Westmoreland.
May, Edward Henry, 26, Bow-lane.
Smith, Henry Tyrwhit, Melton Mowbray.
Stephens, William Bray, Plymouth.

APPOINTMENT.

Derbyshire General Infirmary.—Dr. Henry Waldron Watson, was elected one of the Physicians to this Institution, January 7, by a majority of four votes.

DEATHS.

Dickson.—December 22, at Stonehouse, Anthony Dickson, Esq., late Physician-General of the Bengal Army, and Justice of the Peace for Berwickshire, aged 83.

De Claubry.—Dr. Gaultier de Claubry, one of the most zealous and active members of the Académie de Médecine, died in Paris recently, aged 70. He was the author of numerous memoirs and reports, and especially of those published annually by the Académie, on the Epidemics of France. His work on the Analogies and Differences between Typhoid and Typhus Fevers, is highly esteemed.

Parker.—January 8, at Overton, Flintshire, Henry Parker, Esq., M.D., aged 68.

Sharples.—January 11, at Tamworth, Thomas Henry Sharples, Esq., Surgeon, aged 41, M.R.C.S.E., and L.S.A., 1838.

Staines.—January 8, at the Grove, Stratford, Essex, Richard Staines, Esq., Surgeon, in his 76th year.

A VACANCY has just occurred at the "Dreadnought" Hospital-ship by the resignation of Dr. Blackall. We are glad to hear that Dr. Wilks of Guy's is likely to be elected to the post.

HARVEIAN SOCIETY.—The following gentlemen have been elected officers of this Society for the ensuing year:—*President*—Francis H. Ramsbotham, M.D. *Vice-Presidents*—W. J. Anderson, Esq.; Alexander Ure, Esq.; Handfield Jones, M.D., F.R.S. *Treasurer*—Joseph Ridge, M.D. *Honorary Secretaries*—W. S. Britton, Esq.; Edward Hart Vinen, M.D. *Council*—H. Borham, Esq.; W. F. Cleveland, Esq.; Weedon Cook, Esq.; H. Greenhow, M.D.; J. E. Pollock, M.D.; E. H. Sieveking, M.D.; H. Spencer Smith, Esq.; George Webster, Esq.

ROYAL MEDICAL BENEVOLENT COLLEGE.—We have pleasure in stating that the sum of £31 10s., has just been paid over to the College by the Honorary Treasurer of the Naval Medical Reform Association, in accordance with a Resolution passed at a General Meeting of the Subscribers.

DR. SANDWITH.—We have much pleasure in stating that this gentleman is about to publish his Journal relating to the siege and defence of Kars, under the auspices of Mr. Murray, of Albemarle-street.

GUY'S HOSPITAL.—Mr. Bonamy Dobree has been chosen President of the Hospital, in the room of Mr. Charles Barclay, deceased.

ROYAL GEOGRAPHICAL SOCIETY.—At the meeting of this society on Monday, Admiral Beechey presiding, an interesting communication was read from Dr. Kane, relative to his Arctic expedition in search of Sir John Franklin and his crew, to the Secretary of the United States Navy. After some discussion, in which the greatest praise was given to Dr. Kane and his gallant companions, a wish was expressed by Captain Osborne that, when the war concludes, efforts may yet be made to find the bones of Captain Franklin and his crew, and do honour to their remains. The meeting concluded with the somewhat unusual demonstration in a scientific society, of three cheers for Dr. Kane and his party, and three cheers for those enterprising men who fitted out the expedition.

TESTIMONIAL TO MR. WILLIAM WEBBER, OF NORWICH.—It will be seen by reference to our advertising columns that it is intended to present to Mr. Webber's family a portrait of that gentleman, and to entertain him at a public dinner, to be held at the Swan Hotel, Norwich, on the 26th instant. We understand that His Grace the Duke of Wellington and others in high position intend to join Mr. Webber's Medical and other friends in this testimony of esteem. Mr. Webber is the founder of and senior Surgeon to the Norwich Free Hospital for the Hopeless.

NORFOLK AND NORWICH HOSPITAL.—At the quarterly meeting held last week, the Board of Management reported that a donation of 100 guineas had been received from the Bishop of Durham; and official information had been given of a legacy of £100 from the late Sir Charles Chad.

THE GATESHEAD DISPENSARY BALL took place last week, at the Assembly Rooms, when nearly four hundred persons were present.

QUEEN'S HOSPITAL, BIRMINGHAM.—An unknown benefactor has presented to this Institution £1000 towards the formation of a permanent benevolent fund, for the relief of accidents and acute medical cases.

MURDER OF MR. STIRLING.—Two men (Rayne and Cain) have been committed for trial on the Coroner's Inquisition for this outrage.

MARGARET-STREET DISPENSARY FOR CONSUMPTION AND DISEASES OF THE CHEST.—The Anniversary Ball, in aid of the funds of this Charity, took place at Willis's Rooms on Thursday, under distinguished patronage.

THE LEARNED PROFESSOR FREDERICK HERMANN, OF Göttingen, died at that place on the 31st ult. Hermann is the sixth Professor of eminence at the same University who has died within the last twelve months.

PROFESSOR OPPOLZER AT WARSAW.—Professor Oppolzer has been sent for from Vienna to Warsaw, in order to treat Prince Paskiewitsch, who, notwithstanding he is an enemy to all Doctors, was so taken with the Professor that he desired him to prolong his stay. Oppolzer has diagnosed a perforating ulcer of the stomach, and the prognosis is rendered still worse by the fact of the existence of a large painful carbuncle in the spinal region. The Professor, it is said, receives 2400 francs per diem, all the expenses of his journey and residence being defrayed. Moreover, crowds of the inhabitants of Warsaw consult him.

THE RIGHT OF WAY THROUGH BARTHOLOMEW'S HOSPITAL.—Yesterday, at a Court of Aldermen, it was stated that the governors of St. Bartholomew's Hospital had affixed placards on the gates notifying that persons would not be permitted to pass through the hospital now that the cattle-market has ceased to be held in Smithfield, and that the public were thereby deprived of a thoroughfare to which they had heretofore been accustomed. Aldermen Sidney said he should very much deplore if the members of that court, sitting there in their representative character as the guardians of the public highways of the City, should allow an ancient way, like the one referred to, to be stopped up on such insufficient evidence as, it seemed, had been adduced by the solicitor of the hospital. After a brief discussion, the matter was referred to the General Purposes Committee, with power to instruct the City Solicitor to take the opinion of counsel.

MR. DUIGAN, whose return from the Crimea and visit to his native city we lately had occasion to notice, has rejoined the Naval Service at Plymouth, having been appointed to the *Sea-horse* Mortar-ship, destined, it is understood, for the next campaign in the Baltic. His reception in Kilkenny was enthusiastic, and the banquet to which he was invited by his fellow-townsmen was presided over by the Mayor and High-Sheriff of the city.

CHOLERA IN BERLIN, 1855.—Although the cholera which manifested itself in Berlin in 1855 did not take in a very great extension, the proportion of deaths was unusually large. There were in all 2172 cases, 787 persons recovering and 1385 dying.

CHOLERA AT MADRID.—*La Seminario* gives the number of cases at Madrid as 5501, with 3697 deaths. The Queen of Spain, desirous of recognizing, as far as the state of the treasury allows of it, the great sacrifices made by the Profession, has distributed 1000 reals (250 francs) to the widows of those Practitioners who have died during their attendance on cholera patients.

SUICIDE IN INDIA.—This appears to be a very prevalent practice, and three-fourths of the suicides are women. Out of 257 cases in one territory, 188 were females. Of 51 cases of female suicide, 31 were under the age of thirty, and 17 under twenty. Under the East India Company's regulations, suicide is not an offence. Appeals to Superstition appear to be the best corrective. An Ameer of Scinde stopped an epidemic of suicide by threatening that the corpse of the next woman who hung herself should be exposed in the market-place. And the *Friend of India* recommends that the corpse of a suicide be invariably buried inside the skin of a *pig*.

A CHILD, two years of age, near Preston, apparently drowned in a brook, was put into heated water, rubbed, wrapped up in flannel by two women, and held to the fire. Animation was restored, but the child's flesh had been so scorched that the skin peeled off, fever set in, and death finished it.

RAILWAY ACCIDENTS.—Compared to the loss of life or injury to persons by the old system of coaching, safety on the iron road becomes almost absolute; and the loss of life in a single emigrant ship far exceeds all the destruction caused in a year on all the lines. In England alone, in 1854, the railways carried 92,346,149 passengers, and the total number killed was only 180 persons. Of these only nine met their death by causes beyond their own control. Thirteen passengers were killed or wounded by their own indiscretion. The remainder were servants of the companies, or of contractors, who perished or were injured either unavoidably or from their own imprudence, and trespassers killed or hurt while rashly crossing or walking on the rails. For every million of passengers conveyed, the percentage of those killed or injured in the three kingdoms, in 1854, amounts in England to ·09 killed, and 3·08 injured; in Scotland—killed, 0·16; injured, 3·51. in Ireland—killed, ·14; injured, ·57.

THE NUMBER OF DEATHS IN PARIS in 1854 was 40,968, and 24,969 of them took place in private houses, 13,896 in Hospitals, 1582 in Military ditto, 227 in prisons; 293 were registered at the Morgue, and 1 was an execution. Of the total, 20,348 were females, and 20,620 males. Notwithstand-

ing the frequent recommendations of vaccination, not fewer than 802 of the deaths were caused by small-pox. As regards the latter disease, the Mayors of Paris have published a notice recommending the poorer classes of the capital to get their children vaccinated, adding, that "no man or woman can receive assistance of any kind unless they can show that their children have been vaccinated, and are sent regularly to school."

THE MEDICAL DEPARTMENT OF THE TURKISH CONTINGENT.—The *Times'* correspondent, writing from Kertch, says:—"I have no hesitation in saying that our Medical Department has done more to bind the affections of the men to our rule than anything else. Dr. M'Pherson, on his arrival, pitched his tent with them, associated with the men, explained to them that he had been for the last twenty years with Mohammedans in the Nizam's army; that Her Majesty's Government had sent him out to take care of them, and that he would treat them as his own sons. He speedily won their confidence, and has got his staff, who have proved first-rate men, into a system equal to that in any portion of Her Majesty's army. They are more esteemed by the men than any other officers in the force; and their patients are always sending them gifts."

COLNEY-HATCH LUNATIC ASYLUM.—Last week the annual Christmas entertainment to the patients was given in the hall of the above asylum. The performance commenced with a series of dissolving views, in which the inmates evinced great interest, especially with those relating to the present war. They were then regaled with refreshments, after which they were invited to join in the "cheerful dance," which pastime they entered into with great avidity, and seemed to enjoy heartily. The good effect of these entertainments will, perhaps, be better understood when we state that, although the daily average of fits in the asylum amounts to from 250 to 300 (there are 1250 inmates), yet, when some subject of this kind is talked of, this large number decreases to 15. The arrangements reflect the highest credit on the officers of the asylum.

THE ARCTIC EXPEDITION.—We learn that the Hudson's Bay Arctic expedition in search of Franklin had returned, after reaching the place where Franklin's crews were reported to have perished. Dr. Rae's report was fully confirmed. They met Esquimaux in that vicinity who had seen the whites, and gave much valuable information. On the island were discovered the remains of a boat, which had been partially destroyed by the natives for the sake of the wood and the metal fastenings, although there was sufficient left to identify it as having belonged to the Franklin expedition; one fragment of wood (now, as well as some other small relics, in the possession of the Hudson's Bay Company at Lachine) having the name Terror branded on it, while another piece has the name of Mr. Stanley (Surgeon to the Erebus) cut upon it; this latter being part of a snow-shoe, evidently of English manufacture, being made of oak, a species of wood no man accustomed to get snow-shoes would ever select for the purpose. No papers or books, and no human remains, were found. The Esquimaux were very friendly, and freely displayed all their treasures obtained from the boat, or found near it, and these consisted principally of the oars, used by them as tent-poles, the boat kettles, the empty preserved-meat cases, etc. but no papers; and the natives stated, with every evidence of sincerity, that none had ever been seen or found; everything portable was secured and brought back.

ARSENIC AGAIN.—An inquest was held on Monday, at Sheppardine, in the parish of Rockhampton, Gloucestershire, before W. Gaisford, Esq., on the body of Mr. Robert Barrow, a gentleman well known in the sporting world. Domestic sorrows had so preyed on Mr. Barrow's spirits that he had been in a state of despondency, causing much alarm to his friends, who, however, did not think it necessary to put him under restraint. On Sunday night he was taken ill, and died next morning. The Surgeon, not being satisfied as to the cause of death, made a post-mortem examination, which showed that death had resulted from arsenic. Dr. Davey, proprietor of the Northwoods Private Lunatic Asylum, considered the deceased was not accountable for his acts for several days previous to his death; and that it was his opinion that it was one of those cases, too often neglected because not properly understood, that so frequently led to homicides and various other crimes, and were not properly discovered till their dire effects were manifested, as in the present instance, or till the patient committed some wilful act on the person of another. The jury after a short consultation, returned a verdict "That the deceased destroyed himself by taking arsenical poison, *but that at the time of so taking it he was not aware of its effects.*"

MORTALITY NOTABILIA.—1100 deaths were registered in London in the week that ended on Saturday. In the second week of the last ten years (which corresponds to last week) the average number was 1239. If for comparison with the deaths in the present increased population this average is raised by a tenth part, it becomes 1363. The present state of the public health must be regarded, therefore, as comparatively good, and gives a total number which, as compared with the number of births, is less by 463. Of the 1100 persons who died, 224, or about a fifth part, perished before they had completed the first year of their existence. Fatal cases produced by diseases of the respiratory organs have decreased in the last fortnight. Twenty-one deaths occurred from small-pox, 4 of which took place in Woolwich. Mr. Rixon, who registered three from that disease in the Royal Ordnance Hospital, mentions that it has been extremely prevalent there, but is now abating; that there were upwards of 30 cases at one time in that establishment, and some of the worst description.

BIRTHS.—The births of 798 boys and 765 girls, 1563 children, were registered. Average 1486.

METEOROLOGY.—The mean height of the barometer in the week was 29·357 in. The barometer rose from 28·85 in. on Monday to 30·40 in. at the end of the week. The mean temperature of the week was 36·4°, which is 1·3° above the average of the same week in 38 years (as determined by Mr. Glaisher). The air was much colder than in the two previous weeks. The mean temperature was below the average on the last four days. The *highest* occurred on Sunday and Monday, and was 47°; the *highest* on Friday was only 32·8°, while the *lowest* in the week occurred on that day, and was 27·9°. The entire range of the week was, therefore, 19·1°. The mean dew-point temperature was 34·4°, and the difference between this and the mean air temperature was 2°. The mean temperature of the water of the Thames was 41·9°. The temperature of the river varied from 44·1° to 38·2°. The wind which blew from the south or east at the beginning of the week, changed to north-east on Tuesday, and continued almost constantly in that direction. Rain 0·89 in. Horizontal movement of air, 535 miles; electricity positive, with variable tension.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, January* 12, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, January 12, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 36·4						° 38·7
ALL CAUSES	1100	484	186	176	207	47	1238·5
SPECIFIED CAUSES	1097	482	185	176	207	47	1231·5
DISEASES:—							
1. Zymotic Class	223	147	42	18	15	1	254·9
2. Dropsy, Cancer, and others of uncertain seat	48	3	11	17	14	3	47·3
3. Tubercular Class	157	55	68	28	6	..	190·4
4. Of Brain, Nerves, etc. ..	126	60	13	19	31	3	135·6
5. Of Heart, etc.	44	4	10	16	14	..	52·4
6. Of Respiratory Organs ..	238	110	17	39	57	15	299·7
7. Of Digestive Organs ..	61	24	7	13	15	2	64·7
8. Of Kidneys, etc.	13	2	2	5	4	..	14·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	8	..	3	4	1	..	9·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	9	2	1	4	2	..	10·3
11. Of Skin, etc.	2	1	..	1	..	..	2·7
12. Malformations	4	4	..	..	..	..	4·7
13. Debility from Premature Birth, etc.	33	33	..	..	..	..	27·5
14. Atrophy	30	15	1	3	11	..	22·8
15. Age	53	..	..	..	30	23	64·0
16. Sudden	4	3	..	..	1	..	6·2
17. Violence, Privation, etc. ..	44	19	10	9	6	..	24·9
CAUSES NOT SPECIFIED	3	2	1	..	..	..	7·0

DEATHS IN PUBLIC INSTITUTIONS for the Week ending January 12:—

	Males.	Females.	Total.
Workhouses	78	93	171
Prisons	..	1	1
Military and Naval Asylums ..	7	..	7
General Hospitals	39	23	62
Hospitals for Special Diseases ..	7	5	12
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	7	..	7
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	3	6	9
Total	141	128	269

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	5	3	2	..	4
North	490,396	5	5	10	6	7	6
Central ..	393,256	1	4	6	9	1	6
East.....	485,522	5	2	5	16	2	17
South	616,635	8	4	8	8	1	14
Total..	2,362,236	21	20	32	41	11	47

TO CORRESPONDENTS.

Mr. W. Ramsay Steuart's communication will shortly appear.

W. B.—The book has been duly received.

G. D.—Apply to Dr. Andrew Smith, Army and Ordnance Medical Department, Whitehall-yard, and Sir John Liddell, Navy Medical Department, Somerset-house. The grievances of the Naval Assistant-Surgeons having been in great measure redressed, any Medical man may now honourably enter the Medical Service of the Navy.

Dr. Hunt's paper on the Treatment of Epilepsy will appear next week.

J. H. A.—We regret exceedingly to find that the party in question is a member of the College. Our information was that he had been *rejected* at the College, and we were further misled by reference to the London and Provincial Medical Directory, to the general accuracy of which work we have often borne willing testimony.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—We have in my neighbourhood a small Medical Society, and at our last meeting the recent cases of poisoning formed the chief topic of conversation, including the arsenic case at Burdon, and the strychnia and tartar emetic cases at Rugeley.

We were much perplexed, while discussing the therapeutic and toxical doses of these drugs, by two statements by different individuals leading to vastly different conclusions.

After deliberating on the very elaborate and truly scientific statements of Drs. Taylor and Owen Rees, a member introduced a work (now I believe suppressed) by Dr. John Hastings on "The Special Treatment of Hooping Cough," which really threw us into such difficulties, that I am deputed to ask of Dr. Hastings, through your pages, two or three important explanations.

Dr. Hastings gives a list of 548 drugs, varying in every degree of poisonous intensity to simple mucilage, which he declares he has applied to the windpipes of 3350 poor children in the strength and for the duration of time annexed to each drug. He applied, by means of a sponge probang in Case 116, a saturated solution of arsenic for seventeen consecutive days, and found it useless (that is the word). In Case 246: antim. potass. tart., a saturated solution; seven days; useless. But, Sir, mark Case 316: strychnia; 1 part to 15 water; daily for two months; Useful!

Now, Sir, this sponge requires from 15 to 20 minims to moisten it, *ergo*, one child took a grain of strychnia daily for two months. Sir, we want an explanation from Dr. Hastings. I am, etc. M.D.

Neville.—Apply to Sir John Liddell, Navy Medical Department, Somerset House.

A Well-wisher and Constant Reader.—The fee in question is only payable in the case of those insane persons who are *not* residing in a workhouse. The fee is fixed by Act of Parliament, which is quite explicit upon the point.

A Sick Student.—The instrument must be out of order, or must have been improperly managed. Brief's Portable Gazogene is a very convenient apparatus, or if that does not answer, any good workman may construct another which will serve the purpose.

A Union Surgeon will find that his letter has been attended to.

A Student.—The subjects for the next Preliminary Classical and Mathematical Examination at Apothecaries' Hall, are, in Latin, Cicero de Amicitiâ, and the First Book of the Odes of Horace; in Greek, the Gospel of St. Matthew and the Fourth Book of Homer's Iliad; the First Book of Euclid; Arithmetic and Algebra, as far as, and including, Simple Equations.

Dr. John Renton, of Edinburgh, has written us a letter denying that his election as Municipal Representative of the Town Council was in any way due to the influence of the publicans. He states, moreover, that he was proposed by an ex-Magistrate of the City, who is a strenuous advocate for temperance, and that he was elected unanimously and unopposed, without any canvass whatever. Dr. Renton's suspicions of interested or unworthy motives, on the part of our informant, are entirely unfounded.

Chirurgus.—The difficulty seems to arise from what we believe to be the fact, viz., that the information is made the subject of "penny-a-line" emolument.

COMMUNICATIONS have been received from—

G. D.; Mr. J. Z. LAURENCE; Mr. J. C. PARKER; Mr. DAVID MORRIS; Messrs. WINTER, WILLIAMS, & Co.; Mr. WILLIAM HEWITT; Dr. ANDREW SMITH; J. H. A.; Mr. W. RAMSAY STEUART; Mr. RICHARD GRIFFIN; W. B.; Mr. W. ADAMS; A SICK STUDENT; NEVILLE; THE ROYAL INSTITUTION; A WELL-WISHER AND CONSTANT READER; Mr. W. S. BRITTON; Mr. TUCKER; Dr. H. W. WATSON; M.D.; Mr. TINSLEY, Sheffield; Mr. WHITE, Nottingham; Mr. HENRY THOMPSON; Mr. JOHN ADAMS; Mr. S. N. SIBLEY; Dr. SLOANE, Leicester; Mr. ROYSTON, Liverpool; Mr. ATHOL JOHNSON; Mr. DYER, Guy's Hospital; Mr. W. TAYLOR; Mr. T. H. SNOW; A STUDENT; A UNION SURGEON.

APPOINTMENTS FOR THE WEEK.

JANUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
19. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.: Dr. Tilt "On the Treatment of Uterine Deviations."
MONDAY.....		CHEMICAL SOCIETY, 8 p.m. STATISTICAL SOCIETY, 8 p.m.
22. TUESDAY	Operations at Guy's, 1 p.m.	ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.: Subjects—Mr. Geo. Pollock "On Congenital Deficiency of the Palate, and the Means to be used for its Relief."—Professor Mayer, of Madras, "Chemical Examinations in a fatal case of Obstruction of both Ureters by Calculi." ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy." METEOROLOGICAL SOCIETY, 7 p.m. ZOOLOGICAL SOCIETY, 9 p.m.
23. WEDNESDAY..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	GEOLOGICAL SOCIETY, 8 p.m. ROYAL SOCIETY OF LITERATURE, 4½ p.m.
24. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	ABERNETHIAN SOCIETY (St. Bartholomew's): Mr. Hutchinson "On the Uses of Chlorate of Potash in Surgical Diseases." ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light." ROYAL SOCIETY, 8½ p.m.
25. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	ROYAL INSTITUTION, 8½ p.m.: W. R. Grove, Esq., Q.C., "On the Inferences from the Negation of Perpetual Motion."

ORIGINAL LECTURES.

ABSTRACT OF CLINICAL LECTURES

DELIVERED AT THE

Hotel Dieu,

By Professor TROUSSEAU.

Lecture VI.

PARACENTESIS THORACIS IN PLEURISY.

In 1841, M. Trousseau practised paracentesis in several cases of acute pleurisy, and succeeded in establishing the operation, which had hitherto been resorted to quite exceptionally, as a rule of practice; so that, at the present time, it is employed by several Practitioners with more boldness than by himself, who first advocated its extension to these cases.

All who are conversant with the excellent writings of M. Louis, derive the conviction from them that acute pleurisy is always cured; and in fact, if this is not an absolute truth, it is nearly one, for in nineteen cases out of twenty, if not in ninety-nine cases of a hundred, recovery is the result. Still death does sometimes occur, and the partisans of M. Louis admit this, for they too have lost cases. When M. Trousseau first published upon the subject, there were from fifteen to twenty such fatal cases on record: and even supposing the proposition were absolutely true, which such examples prove it is not, that death never results from simple pleurisy, paracentesis ought still to be practised, as being the best means, in certain cases, of securing a rapid and effectual cure.

The following were among the occurrences that induced M. Trousseau to resolve upon practising paracentesis in the first case of excessive pleuritic effusion that might occur to him. In 1831, he saw a young woman die nearly suddenly, the autopsy revealing nothing but an enormous serous effusion; and in 1841, another young woman, the subject of an effusion of twelve days' date, also expired suddenly. Some time after, a nurse, 27 years of age, entered his ward, having a pleuritic effusion, and having prescribed for her, he desired the *interne* to operate in the evening, in the event of the symptoms becoming aggravated. In the evening, her breathing being less oppressed, no operation was performed, but she died the next morning. Full of the reflections such facts suggested, M. Trousseau was called to the daughter of a literary man, labouring under an effusion that had become excessive, in spite of all treatment employed. The operation was performed, and the cure followed rapidly. During the same year, he resorted to the operation seven times, under similar circumstances, and with a like result.

It may be asked, Why have recourse to an operation for a disease of so little danger? The reply is, that of all modes of treatment, that by paracentesis is the most simple. Still, M. Trousseau limits its application, and never resorts to it for an effusion that does not fill three-fourths of the chest. In this, he differs from some of his colleagues who tap the chest, without inconvenience it is true, for much smaller collections of fluid. He practises and recommends paracentesis only in the case of excessive effusion, when the whole side, up to the clavicle and supra-spinal fossa, is filled with fluid—and still more when displacements occur, when the diaphragm is thrust down, the heart forced from its normal position, the intercostal spaces enlarged, etc.

Admitting that pleurisy, in the cases we are speaking of, does not place life in peril, it is nevertheless a disease of long duration, lasting sometimes for weeks even in simple cases, and whole months in those of a more serious character; while, if the patient be predisposed to tubercles, there is the great danger of this prolonged fluxionary condition arousing the diathetic susceptibility, just as a persistence of a hydarthrosis may dispose a joint to the lesions which constitute white swelling. Medical treatment put into force to induce the absorption of very large effusions, is not only inferior in efficacy, but has also real inconveniences. Thus, the reiterated application of blisters gives rise, at last, to the establishment of a permanent suppuration on the chest, which impairs the constitutional power, and induces a kind of suppurative diathesis that must be regarded as very fitting to favour the formation of pus globules in the originally serous thoracic fluid. That which is only obtainable after the prolonged employment of blisters, diuretics, digitalis, etc., is procurable at once by means of the puncture. If it be objected that as long as the inflammation persists the fluid will be reproduced, it may be replied, that if the inflammation is not dissipated by the fact of the evacuation of the fluid, neither it, nor the power of production of the fluid, is increased by this. The fluid, indeed, rarely collects in the same quantity as before, but yields to the conjoined efforts of nature and appropriate medicinal agents. Some Practitioners entertain the groundless apprehension that the fluid may undergo a purulent transformation after paracentesis, the production of pus globules being rather due to the chronicity of the affection than to any other cause, and being certainly as frequently met with under any other form of treatment.

The indication for operating is to be drawn from the quantity of liquid, and not from the amount of functional disturbance, such as, for example, the oppression of breathing. Thus, the patient in No. 10 suffered four or five days ago from very considerable oppression, which then diminished so much as to cease to inconvenience him, although the operation furnished more than 7 lbs. of fluid. So free had his respiration become prior to the operation, that he rose and went to the privy, fainting when he got there. You will meet with individuals with enormous effusion making no complaint of, and not perceiving, any oppression of breathing, although this is really in existence, as may be ascertained on examination of their inspiratory power. This defective impressionability, where so much cause for oppression existed, as in the case of the man in No. 10, is very remarkable, for respiration was carried on only by one lung, the play of which was also limited by the compression exerted by the heart and mediastinum. The same insensibility prevailed in the cases seen by M. Trousseau at the Necker. M. Pidoux, too, in his monograph on latent pleurisy, relates the case of a patient who died suddenly under similar conditions. The same happened in a case in which MM. Trousseau and Chomel were about to determine to operate. We must, therefore, never take as the basis of our determination to operate anything but the quantity of fluid, the amount of which may always be judged of by inspection, percussion, and auscultation. The amount of febrile reaction will not serve us as a guide, any more than the oppression of breathing; for we find the effusion becoming excessive precisely in the subacute, the so to say hidden, form of pleurisy, in which the fever is slight, and the pain in the side almost insignificant. There appears in such cases something as much due to the fluxion as to the inflammation; and, without professing to institute any exact comparison, they seem to differ as much from simple inflammatory pleurisy as a hydarthrosis differs from an arthritis, properly so called.

When the operation has been decided upon, it must be performed according to the rules, and with the precautions, now generally known. Some time since, M. Trousseau was in the habit of puncturing the skin lower down than the intercostal space, to be penetrated by the trocar. The result was, that after the withdrawal of the trocar, and when the skin had returned upon itself, the aperture made in it did not correspond with the opening in the intercostal space, and the admission of air was thus opposed. Since then he has found that this precaution, though good in principle, is superfluous; for the trocar, in passing through the intercostal space, does not, properly speaking, make an aperture, but separates the cellular tissue, and muscular fibres, which return upon themselves immediately after the removal of the cannula. Moreover, the evacuation of the fluid, and the diminution of the capacity of the chest, prevent the relations of the skin with the subjacent parts continuing the same after as prior to the operation, so that we obtain naturally the desirable absence of parallelism. No air ever enters, either at the time of or after the extraction of the cannula, and any fluid that may remain in the chest never obtains issue through the track formed by the trocar. The puncture of the skin may be, therefore, made exactly opposite the intercostal space to be perforated.

This second stage of the operation should be performed resolutely. Having fixed with the finger the length of the instrument he intends passing into the chest, the operator should penetrate by means of a decided thrust, and not softly, as is sometimes done. The latter procedure may expose him to a failure of rather a mystifying nature. Should a false

membrane of somewhat resisting texture happen to be placed over the point where the trocar is only gently passed in, this may become detached, and pushed forward before the end of the instrument, not a drop of fluid issuing, although the side may be filled with it. In this case we must try to free the cannula by means of a probe, and, failing in this, replace the trocar, and execute a new puncture with a sharp, energetic movement. A bold puncture does not entail any greater danger, in the event of error of diagnosis, than one made more gently; for, in the one case as in the other, the lung will be penetrated—which the experiments MM. Trousseau and Leblanc have made upon horses show is no such very dangerous an occurrence. Moreover, an error of diagnosis is well nigh impossible for an attentive Practitioner.

At first, the fluid flows only in a dribbling manner, but gradually, as the thoracic parietes, the diaphragm, and the displaced organs, recover their position, the stream becomes stronger. Moreover, the completely flattened lung receives air, and dilates at each inspiration. To facilitate this, and favour the yielding of the adhesions, the patient should be encouraged to take deep inspirations, to strain, as when at stool, or cough, which latter action he frequently performs involuntarily, owing to the stimulating effect the air exerts upon the bronchial mucous membrane, which had ceased to be habitually in contact with it. M. Trousseau employs all these means in order to remove as much of the fluid as possible, differing in this point from some of his colleagues, who prefer withdrawing only a portion. By acting thus, he believes he does not expose the patient to any danger from syncope, pulmonary rupture, etc., while he places him in the most favorable conditions for the resolution of the disease, having restored its function to the lung, and their normal positions to the displaced organs.

A COURSE OF
LECTURES ON ORTHOPÆDIC SURGERY.

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE V.

(Continued from page 32.)

Pathology of the Reparative Process in Tendons, Muscles, Ligaments, and Fasciæ, after Subcutaneous Division; and the Possibility of Producing Elongation and Shortening of the same Tissues, in Relation to the Cure of Deformities.

Reparative process in Tendons continued.—The general appearance of the connective tissue was in part given when we described its formation by infiltration of the new reparative material between the fibrous elements of the sheath; which sheath, as we said, is but partially divided in the subcutaneous section, and, when completely divided by open wound, does not retract, but has its continuity, to a certain extent, quickly re-established.

The connective tissue, or, as it may be called in reference to the latter stages of its development—*the new tendon*—forming the bond of union between the divided extremities of the old tendon, preserved, to the latest period embraced in these experiments, viz., the sixty-second day, a degree of translucency which made it readily distinguishable from the opaque, white, glistening structure of the old tendon. Up to the eighth day, it presented a slight ruddy tinge, and was in many instances, blotched with blood in its central portion, which appeared to result from the inclusion of the small quantity of extravasated blood within the infiltrated sheath, upon the vascularity of which the ruddiness also partly depended. The vascularity was most conspicuous at its circumference. This colour gradually diminished, and from the twelfth to the sixteenth day, it became uniformly of a greyish translucent appearance, which it preserved in all the specimens of a later date. Simultaneously with this diminution of colour, the new tendon increased in toughness, but retained its homogeneous appearance till the twenty-second day, when a longitudinally striated, or indistinctly fibrous character began to appear. This became more obvious on the twenty-sixth and fifty-fourth days (Figs. 17 and 11), especially when a little extension of the tendon was made; but it did not acquire, even at the sixty-second day, a distinctly fibrous character obvious to the naked eye.

In these experiments the new material did not appear to be effused in greater abundance in the neighbourhood of the upper than of the lower extremity, except in cases in which extravasated blood or inflammation interfered with the reparative process.

At the latest period to which these experiments extended—viz., the sixty-second day—there was no evidence of any process by which the divided extremities of the original tendon might be brought into contact, and a linear cicatrix be formed, which is said by Mr. Tamplin (a) to be the result in the human subject after division of the tendons for the cure of deformities. Mr. Tamplin's statement is not confirmed by my own dissections in the human subject, the results of which exhibit appearances very similar to those described in the late stages of these experiments on rabbits.

Microscopical Examination.—In treating of this part of the question, writers have been led into great confusion, from the fact that they have not properly distinguished between the reparative processes *per se*, and the materials employed to effect pure reparation on the one hand; and the possible complications on the other hand. I have already explained to you, gentlemen, that the reparation of tendons, like all other processes for the reparation of injuries, may be complicated by the presence of blood extravasated at the time of the injury, and by inflammation, which may come on afterwards.

Now, if specimens are taken indifferently, without regard to the fact whether the reparative material is or is not mixed with blood, or with inflammatory exudation, or with both; then a vast number of cell-forms, such as those which fill the plates of Thierfelder, may be described, and may be assumed to take part in the regular and essential reparative process.

On the other hand, if specimens are selected exhibiting the best and most perfect examples of newly-formed connective tissue, it will be seen that this variety of forms is not necessary; on the contrary, that it is an accidental accompaniment; and that it indicates circumstances which do not promote, but which interfere with and retard the true reparative process.

If portions are taken from specimens in which clots of blood exist, generally in a softened condition, surrounded by inflammatory exudation, etc.,—then you should examine only such portions as are the furthest removed from the neighbourhood of these disturbing influences, viz., close to the ends of the old tendon; and from the central, rather than the circumferential, portions of the connecting material. In these portions only will the appearances be found identical with those of the more perfect specimens.

If portions are taken from other specimens, in which extravasated blood may be absent, but in which excessive inflammatory exudation has taken place,—rendering the sheath and adjacent cellular tissue succulent, so as to fill up the gap, and give the appearance of a thick and irregularly defined cord-like bond of union, larger than the tendon itself, and lying between its divided ends, as occasionally seen from the third to the sixth day,—the appearances will be such as are generally found in plastic inflammatory exuda-

(a) On the Nature and Treatment of Deformities. London: 1846 Page 8.

tions; and even in the central portions, near the ends of the old tendon, granular corpuseles, and irregularly oval, caudate and spindle-shaped eells, frequently of large size, will be seen diffused among the old fibrous tissue of the sheath, whieh ean be at onee recognized; small elongated cells or free nuclei will also be seen in the finely molecular basis-material effused, and free oil globules are abundant in proportion to the proximity to the centre of the inflammatory action.

Sueh speeimens in the present series of experiments some times presented externally more the appearanee of rapid repair, than those in whieh little or no inflammation followed the operation; but it was evident from the naked eye and microscopical examination of numerous speeimens, that the reparative proeess was really less perfeet.

To avoid all such sources of error, I seleeted for mieroseopical examination the speeimens which I considered to be the most perfect, viz.:—those in which extravasated blood and inflammatory produets existed in the smallest quantity, or seareely at all; those in whieh, by the sixth day, a eylindrieal bond of union was formed, of the size of the tendon itself, or perhaps somewhat less in its eentre, having a defined outline, free from adhesions to the skin, exeept of the most delieate kind, and without thiekening of the connecting layers of fibro-cellular tissue, or of the sheaths of the deeper tendons, to impede its free motion; in fact, resembling the tendon itself in all but colour.—In sueh speeimens, very little was seen of the plastie-exudation appearances above deseribed.

Microseopically examined, the material infiltrating the sheath at its upper and lower extremities, on the second day, presented a homogeneous or a very minutely moleeular appearance; and on the third or fourth day, nuelei having a tendency to elongate were visible in the meshes of the old sheath. These nuclei were more numerous and more distinetly elongated on the fifth and sixth days, but they could not be distinctly seen, or brought into view in any numbers, without aeetie aeid. The basis-material simultaneously aequires a tough, membranous-like texture; a portion removed by the seissors could be spread out, but would not tear or split into fibres, its edges tore only in flattened fragments. The fibrillation of this material appeared to be a slow process. On the tenth day it was more separable, and on the sixteenth day its edges split into delieate filaments, generally short but well defined. At this period the nuelei were seen to be much elongated, and more or less perfeetly arranged in parallel lines as in the healthy tendon. The basis-material also presented a delicate fibrous structure. These appearanees became more distinet in the later stages, and were best seen on the fifty-fourth and sixty-seeond days. During the action of acetie aeid, the direet eontinuity of the nuclear fibres eould be seen; but after the full action of the acid, this continuity was seldom distinct, and eould not be preserved; the appearance of the elongated nuelei, in parallel lines, was then as represented in Plate 18, Vol. VI. of the Pathological Society's Transactions, the appearanees in which were drawn from these specimens.

Now, Gentlemen, by these experiments you see that divided tendons in the rabbit become reunited by a newly-formed connective tissue, whieh gradually assumes the structural eharacters of the old tendon so perfeetly that, under the microseope, little or no difference can be pereeived—in faet, that a perfect reproduction of tendon takes plaee—and that this new tendon may be formed of the length of two inches. In external form, definition, and size, it precisely corresponds to the tendon which it unites; and externally the eontinuity beeomes after a few months so perfect, that the line of junction eannot be recognized. On a longitudinal seetion, however, the line of junetion of the old with the new tendon ean be reeognized at the latest period to whieh these experiments extend, viz., the sixty-second day; and I may here remark that I have found this equally apparent in a human tendon three years after division. The old tendon retains its opaque, dense white, glistening eharaeter; while the new tendon possesses a certain amount of transluceney, and is of a uniformly grayish colour, without the characteristic glistening appearance of the old tendon. The mode of eonnexion by the finest dovetailing of the old and new tissues, I have deseribed.

Reparative process in human tendons.—The paucity of faets bearing upon this very interesting inquiry, I have above adverted to. In the Museum of the College of Surgeons are three speeimens of human tendons, after division for the eure of congenital varus, presented by Mr. Tamplin, of which the following description is given in the catalogue, Vol. II. "No. 358, 359, 360:—The tendo-Achillis, and the tendons of the anterior and posterior tibial muscles of a child 19 months old. They were all divided by subcutaneous seetion nearly eighteen months before death. No trace of the division is discernible in any of them; their outlines and surfaces are regular, and their texture is uniform; even with the microseope no part eould be found different from the rest."

Mr. Paget observes (b):—"In the instances of divided human tendons less retraction takes plaee than in those of the lower animals. The connecting bond is, therefore, eomparatively shorter; and it is yet more shortened when, like a sear, it contraets as it becomes firmer."

In reference to the ultimate disposal of the new connecting tissue, Mr. Tamplin quotes the account given by Stromeyer, in whieh are the following observations (c):—"The idea that the elongation of the muscle is effeeted through the eieatrix, is a false one; the extent of the substance, or eieatrix, is quite inadequate for this purpose. In some cases of *pes-equinus*, the gastrocnemii are two or three inehes too short; and, in *wry-neck*, the sterno-mastoid is equally short, yet the eieatrix, after the cure, is but a few lines long. The elongation of the musele must be effeeted in these cases at the eost of its eontractility, and thus the incision of its tendon acts, not only on its meehanieal, but also on its vital, properties; and, by the temporary diminution of its irritability, its contraetile power is diminished, and any inerease of it prevented." Mr. Tamplin then remarks:—"The views of Stromeyer are, I believe, on the whole eorreet. I am of opinion, however, that the new substance will, and does, admit of suffieient extension to eompensate for the greatest amount of shortening met with in any deformity: for I have repeatedly, in cases of talipes equinus, found the new connecting medium full two inches in length within three or four weeks following the operation, espeeially in those cases where there is no resistance in the joint, and where the foot admits of being rapidly brought into its normal position." . . . "It is true, as a general rule, that the eieatrix, after the eure is effeeted, measures but a few lines, oftentimes only a line, in thiekness, provided proper eare has been taken during the treatment. . . . The elongation in eongenital eases, and also in non-congenital eases, of young subjeets, is undoubtedly effected eventually at the cost of the eontractility of the muscle, but not primarily; this is a secondary result, for no new uniting medium can by possibility possess the power of drawing down the musele, any more than the newly-formed granulations following a burn ean do. The eieatrix, as it contracts, eertainly does so, but after the foot is brought into position; and hence the linear cieatrix. The foree of the contraction of a cicatrix is sufficiently evident in the instances of burns alluded to, not only to draw down and overcome one musele, but even a set of muscles, as the extensors of the head and neck, or of the arm, and other parts." Mr. Tamplin then describes two eases, in whieh he had examined the Aehilles and other tendons, in one ease a year, and the other eight months, after division. In all, the reparative proeess is said to have been so perfeet, that no trace of their having been divided could be detected externally or in a longitudinal section. In the section, "a sort of globular appearanee in one spot" is alluded to with some doubt as to its import.

You will perceive that the general tendency of all these observations is to the effect that the newly-formed eonnecting tissue is not a permanent strueture, but that "after the cure" a process of contraetion and absorption takes plaee in it, and proceeds till the whole, or nearly the whole, of it is absorbed, and "a linear eieatrix" produeed by the previously-divided extremities of the old tendon again eoming in eontaet with each other. Aeeording to this view, also, the required length is ultimately obtained at the expense of the museular strueture. Now, so far as my own disseetions in the human subjeet have enabled me to form an opinion, and I have examined, *post mortem*, several eases at periods varying from a fortnight to three years after the division of the tendons,—in addition to several specimens in Mr. Lonsdale's colleetion,—I have arrived at a preeisely opposite conclusion. I have seen nothing to support the idea that this material is absorbed, and "a linear cicatrix" produced.

The preparations in the Museum of the College of Sur-

(b) Op. cit. P. 270. (c) Op. cit. P. 5.

geons above adverted to, were not examined when recent by longitudinal section, the only method by which, at a late period, the difference between the old and new tendon can be recognized, as explained in my description of the rabbit's tendon on the fifty-fourth day after division, and shown in Fig. 18. Small portions have been removed from different parts of these tendons for microscopical examination; and as showing the absence of any minute structural differences, the account given is valuable; but beyond this they have no bearing upon the general question, as to the temporary or permanent nature of the newly-formed connective tissue. The tendo-Achillis of the opposite leg should have been preserved, to demonstrate any difference in the relative length of these tendons.

In all the cases I have examined, a considerable length of new tendon, varying, of course, in every instance, but sufficient for the purpose required, has been clearly traceable; and in the case at the latest period after division, viz., three years, the preparations and drawings from which I now exhibit to you—the specimens were the Achilles-tendons removed from a lady, aged 39 at the time of operation, whose case I related in the last lecture, and who died of rapid phthisis—the length of new tendon inserted between the divided extremities of the old tendon, which are still traceable, is seen to be $1\frac{1}{4}$ inch. I believe, therefore, that whatever amount of new connective tissue, or new tendon—as I prefer to call it, for the very close resemblance of its structure when perfectly formed, to that of the old tendon, fully justifies the expression—is formed, remains as a permanent tissue, and that through its agency the required elongation is maintained.

Union of muscles after division.—Opportunities for examining the reparative process in muscles, after division in the human subject, are occasionally afforded in cases of recovery from incised wounds; and some direct experiments were made by Mr. Paget on the muscles of rabbits. His opinion, which I believe to be correct, is that muscular structure is never reproduced; but that divided muscles are united by a fibrous tissue very much resembling that by which the tendons are united. The effused lymph is developed into fibro-cellular tissue; and, as Mr. Paget observes, does not, as in the repair of bone, pass beyond this, "the lowest form of vascular tissue, and the structure which, in nearly all cases in man, constitutes the bond by which disunited parts are again joined." In Mr. Paget's experiments, "there was always observed a peculiar inversion, subsidence, or tucking-in of the muscular fibres at the divided part; so that nearly all the fasciculi directed their cut ends towards the subjacent bone or fascia." This disposition to become adherent to the adjacent structure is, I think, to be explained by the differences in the anatomical arrangement of the parts, especially in reference to the sheath, form, and the relations of the muscles to the fasciæ, bones, etc.

The union of muscles, therefore, after division, is often very imperfect and indirect; but under some circumstances, and at a late period, after the partial absorption and contraction of the new material, the divided surfaces may be found nearly in contact. Except in relation to the nature of the material, the process bears very little resemblance to the union of tendons.

Union of ligaments and fasciæ after division.—I am not aware of any direct experiments illustrating the reparative process in these tissues; but there can be no doubt of the close resemblance of the process to that just described in reference to the union of muscles. For the same reasons the union is often less perfect and less direct than in tendons,—and in cases in which their division is rendered necessary this is of little moment. In cases, however, of accidental rupture, as of the ligamentum patellæ, their imperfect and indirect union may permanently weaken a joint to a very serious extent.

The possibility of elongating tendons, muscles, ligaments, and fasciæ without operation, is of the utmost importance in relation to the cure of deformities. Muscles which have become contracted and shortened, especially when this condition is recent, may, in some cases, be elongated by stretching; and this may be accomplished in three ways: viz., by active and passive exercises accompanied with manipulations, shampooing, etc.; and by mechanical force constantly applied for a length of time. The effect produced is probably at the expense of the muscular structure, but the precise *modus operandi* is obscure. I should doubt whether the tendons could be elongated by any of these methods; and it is certainly very improbable that the force applied would be sufficient to elongate any of the larger tendons, the tendo-Achillis for example.

Previous to the discovery of subcutaneous tenotomy, the methods to which I have just alluded were those generally employed for the cure of deformities, especially of the feet; and in slight and recent cases, the result was frequently successful; but it was found that the severe deformities could not be cured, even after many years of constant attention. The same means are now used by us as valuable adjuncts to the operative treatment, with the result that, not only are cases cured which never could be cured previously, but that in the slighter cases the time of treatment is reduced from years to months or weeks. We also continue to employ the old methods of treatment in regions in which operations cannot be performed with safety, and where a variety of tissues are contracted. In this way, we more or less completely overcome the contractions about the hip-joint.

There is doubtless some truth in the remark, that these means have been too much neglected, and that tenotomy has been carried too far. It would be a strange exception in the history of new discoveries were it otherwise; but the proper limits to the operative treatment are being rapidly determined by the experience of the Orthopædic Hospital. It is now discontinued in some classes of cases in which it was constantly employed a few years ago, and with the more scientific construction of mechanical appliances, etc., will be still further dispensed with. To this subject more especial reference will be made in the subsequent lectures, when the treatment applicable to each deformity is described.

Ligaments and fasciæ are capable of elongation by two methods, viz., passive exercises, and long-continued mechanical extension; the latter is the method usually employed. Several deformities are produced by elongation of the ligaments and fasciæ, under the mechanical force of the weight of the body, the most familiar examples of which are knock-knee and flat-foot. Ligamentous resistance, from adapted shortening, constitutes the greatest difficulty in the treatment of the severe forms of congenital club-foot, and cases will occasionally be met with, even in children, in which this cannot be overcome. Mr. Lonsdale has a case of this kind now in the Hospital, and has divided some of the ligaments, but without complete success at present. The short, thick ligaments, such as the deltoid at the inner ankle, yield very slowly and imperfectly.

The possibility of producing shortening of tendons, muscles, ligaments, and fasciæ, may next be considered. I have explained to you that many deformities depend essentially upon structural shortening of some or all of these tissues having taken place under various conditions, by a process of adapted atrophy; but, whilst some are shortened, and maintain the deformities, others are necessarily elongated. Occasionally the elongation of some of these tissues is the only abnormal condition we have to deal with. Many attempts have been made to shorten elongated tendons—or, perhaps, it would be more correct to say muscles, as the structural changes are probably in their tissue—by cutting out portions, and some success is said to have resulted, but the danger of suppuration must be considerable; and upon this ground, as well as the nature of the cases in which such a proceeding might appear to be called for, viz.: paralytic talipes calcaneus, and similar affections, I would advise you not to repeat the operation.

We may, however, imitate the more natural process, by which some deformities are produced, and, by long retention in a fixed position, it is possible to induce shortening of these structures. Where the tissues are merely elongated, but otherwise in a healthy condition, the length of time required is not considerable; indeed, the liability to its occurrence is to be especially guarded against in the treatment of several deformities, and to this allusion will be made hereafter. In the paralytic cases I have just adverted to, two or three years are often required, and then the success is only partial.

I have now brought before you the chief points of interest in connexion with the reparative process in the different tissues after division, and the principles upon which the present method of treating deformities are based. In the next Lecture, I propose to commence the separate description of the several varieties of club-foot, beginning with Talipes-equinus.

ORIGINAL COMMUNICATIONS.

INFLAMMATION OF THE OS AND CERVIX UTERI.

By Dr. RIGBY.

Besides arising from general derangement of the system, and an unhealthy condition of the circulation, inflammation of the os and cervix uteri may be induced by causes of a mere local character. Thus, for instance, exposure to cold, but this is more frequently seen to produce inflammation of the ovaries, particularly if acting during a catamenial period; violent horse exercise, especially if, from want of healthy tone, the uterus has descended lower than usual into the pelvis; inordinate or unhealthy sexual intercourse; and improper irritation of the part.

It will be scarcely necessary for me to dwell on cases of this sort, but there is another cause, which would, perhaps, come under the last head, which has existed of late years to an incredible extent, and which has not only produced much local mischief, but, in many cases, has caused a serious amount of spinal irritation, attended with severe suffering, shattered health, and forming a train of constitutional and local symptoms, the treatment of which is both difficult and tedious. I allude to the dishonest application of caustic to the os uteri, at intervals so short, as to render it impossible that the eschar produced by the first application should have healed before the next was made, and continued at this rate for such a length of time as to set up severe irritation, and even produce serious injury.

This form of inflammation of the os and cervix presents features which distinguish it from the ordinary species I have been describing. It would, perhaps, be correct to call it a highly irritable condition of the uterus (which not only involves the ovaries, but frequently implicates the spinal cord to a serious extent,) were it not for the actual alteration of structure and permanent injury of the part which has suffered more immediately from this treatment.

The patient complains of constant pain in the uterine region, but generally more behind the symphysis pubis than is usually the case in ordinary inflammation of the cervix, extending from hip to hip, and in aggravated cases darting up the spine with neuralgic severity. It is increased by standing or by any exercise whatever. Sitting down upon a hard seat, or the passage down the rectum of solid fæces, produces great suffering, inasmuch as when once the pain is brought on, it will continue severely for some time after. The moment she assumes the erect posture she has a sensation of weight, bearing down, and burning heat in the pelvis, which are quickly followed by the pain itself.

The catamenial periods usually follow each other too quickly; are almost always very profuse, and invariably attended with great suffering. If the ovaries are involved, the symptoms of ovarian dysmenorrhœa will also be present. She has a constant ichorous watery discharge, which is sometimes very profuse. The bowels are unhealthy; the urine thick; the tongue pale, dry, and rough, with red papillæ; the face is sallow and wan; the spirits depressed; the pulse feeble and very irritable; and she has lost strength and flesh.

On examination, per vaginam, this canal is found soaked in the thin, watery discharge already mentioned. On gently touching the os and cervix uteri with the finger, the patient feels as if the parts were raw, from the aggravated sensibility which now exists in them; firmer pressure with the finger brings on the neuralgic pain already described. The os uteri is usually swollen, uneven, and knobby—it is frequently dragged forwards, or to one side, without any corresponding displacement of the organ itself. Whether this alteration of shape is owing to cicatrization in the part itself, and surrounding vagina; or whether it depends on different portions being affected with different degrees of induration, it is not easy to determine; at any rate the cervix usually has a strong degree of hardness, and the uterus above it feels large, hard, and very tender to the touch.

Seen through the speculum, the os uteri does not present the dark red tinge, more or less mottled with patches of a brighter colour, as in cases of ordinary inflammation, but it has a pale ashy hue much injected with vessels, just as is occasionally seen in the irritable throat and tonsils of an unhealthy person who has been suffering from repeated attacks of quinsy.

The discharge is evidently uterine, and is constantly oozing from the os uteri in considerable quantities. If the uterine sound be passed, it generally penetrates half-an-inch, or even a whole inch, beyond the usual distance, showing that the uterine cavity is enlarged; and intense pain is produced the instant it touches the internal surface of the uterus, indicating great irritability of that organ, and probably inflammation of its lining membrane.

The treatment of this affection will necessarily differ a good deal from the ordinary forms of inflammation of the os and cervix; the indications, it is true, will, to a certain extent, be the same, but the local as well as the general condition of the patient is very different. The inflammation of the os and cervix in these cases is seldom of such a nature as to require the application of leeches to the part itself, and the extreme irritation which they not unfrequently produce contra-indicates any local applications but those of a soothing character; while the enfeebled state of the patient's health renders any depletion very questionable.

The general treatment is by no means so simple or so easy as in the other case. The health has been so much deranged by the long-continued effects of severe uterine irritation, and the strength so broken down by frequent attacks of menorrhagia, and the profuse leucorrhœa during the intervals, that it is difficult to adopt any distinct line of treatment at first starting, beyond the attempt to regulate the liver and bowels by the mildest remedies, and soothe the irritable system by gentle sedatives.

A course of taraxacum, with decoct. sarzæ comp. and liq. calcis, is valuable in the early stage of treatment, as it obviates the necessity of mercurial alteratives, which are usually contra-indicated by the mucous irritation of the intestinal canal. It is of great importance to allay this condition as quickly as possible, not only because we thereby remove a fruitful source of uterine irritation, but because it also enables us to employ remedies which we could not otherwise do. When this has been arrested, we may generally pass at once to the use of mineral acids and tonics, and, if necessary, these will pave the way to a course of cod-liver oil. If the season of the year permit, a residence for some months at the sea-side will be most desirable. The patient should use sea-water in her morning ablutions, and, if her health be sufficiently improved, and the weather warm enough, she may bathe in the sea with advantage.

The local treatment, as I have before stated, must be essentially of a soothing character. Liq. plumbi diacet. in decoct. papaveris forms one of the best injections where there is any amount of heat, swelling, or discharge; in other cases, the plain poppy decoction appears to be the only local application which will give relief. As it is desirable she should retain injections of this sort for fifteen or twenty minutes, she ought to lie upon her back, with her heels drawn up to the nates, and thus give the vagina such a direction, that the injection will remain in it as long as she preserves this position. The suppositories of diacetate of lead and extract of conium are also very valuable in these cases, and, by being in a more concentrated form, and capable of being retained much longer, produce a much greater effect. The warm hip-bath is very useful, and with some patients appears to be the only thing which gives relief. If, however, the weather be mild, the sooner she can gradually come to the use of cold water the better; and she may always be looked upon as having made good progress when, during her residence at the sea-side, she is able to bear cold sponging with sea-water, and bathing in the open sea. For those who are unable to enjoy these advantages, the salt towel which I have before recommended will be an excellent adjunct to the cold sponging. But it will be needless to enter into further details; they will vary more or less with every patient, or with the same patient at different times, and will be naturally suggested by the peculiar features, etc. of each case. The indications of treatment are to allay irritation and restore tone, but the treatment itself must necessarily be modified by the circumstances of each particular case.

I am sorry to acknowledge that I find no difficulty in illustrating this, in many respects, disreputable subject; for my supply of cases, of which I have taken notes, is very considerable. In 1847 and 1848, when the speculum furor was rising to its height they were few and far between; but dur-

ing the last three or four years, the frequency of these cases has greatly increased. The dishonest use of the speculum and caustic is gradually working its own cure, not, alas! upon the perpetrators, but many a miserable broken-down invalid, to whom life has become a state of continued suffering, bitterly rues the day when the overdrawn statements of some gossiping friend, or her own love of "what is the fashion," prevailed on her credulity to entrust herself into the hands of these unscrupulous members of our Profession.

As regards cases for illustrating the foregoing remarks, the only difficulty is in the selection and arrangement of them; for, as I have before stated, the supply is abundant. I will begin with some of the milder cases among married women:—

Mrs. A., aged 23, married three months.

January 5.—Delicate, just recovered from low fever with influenza, much headache; had slight swelling and tenderness of the lower part of the abdomen, on the left side, which has been leeched with relief; is of a constipated habit. No leucorrhœa.

Three weeks ago was under the treatment of one who has not deemed it inconsistent with his creed to adopt this practice:—he had applied caustic to the os uteri three times, with intervals of only four days, on account, as he said, of hardness of the cervix.

Examination per vaginam.—The os uteri is turned rather forwards, but I do not detect the slightest indication of the fundus backwards. The os and cervix, when touched, feel sore, as if raw, which she says was never the case until the caustic was applied.

Mistura ferri et magnesiæ sulph. o. m., Acid. nitro-muriat. c. taraxaco ex infus. gentianæ co., ter die; Suppositorium plumbi diacet. c. extr. conii. o. n.

14.—Much better.

Examination cum speculo.—Os uteri quite healthy; rep. med.

March 25.—Is quite well, and has every reason to suppose herself pregnant.

The details of this patient's previous history are scanty and imperfect; but it may be safely inferred that the attack of inflammatory pain in the vicinity of the sigmoid flexure of the colon was probably a result of the constipation to which she was liable.

It seems rather strange that hardness of the cervix should be considered as indicating the application of solid nitrate of silver! No practitioner would think of applying it in this way to any other glandular tissue in a state of irritable induration, except, perhaps, the homœopathists, who by such treatment would illustrate their celebrated dictum of "similia similibus curantur." In the present case it was much the same, the practitioner having applied an irritant to relieve irritation!

The lunar caustic was applied but three times, but at intervals so short, that the raw surface thus produced could not possibly have been healed over; in fact, even the eschar of dead epithelium could not have been thrown off much more than twenty-four hours before it was applied again, so that the second and third applications of caustic were evidently made to a raw surface. If a blister were applied every fourth day to the same spot on the external surface of the body, we should naturally expect to produce in a short time an ugly ulceration, of a highly irritable character; and if the part were in the neighbourhood of superficial, or other glandular structures, we should naturally expect to find them soon becoming hard and tender, as a necessary result of irritation thus fiercely applied; and yet when directly applied to an internal and highly irritable glandular tissue, the greater part of which is covered only by a delicate mucous membrane, and this application frequently repeated at such short intervals that the surface is entirely, and sometimes deeply, denuded of its natural covering, we are to suppose that such treatment will not only produce no irritation, but even remove an existing state of irritation, and render a glandular tissue soft, which has become hard from irritation. Such treatment applied to an irritable breast or testicle, especially where the habit of body is feeble, and the health deranged, would reasonably lead us to expect, sooner or later, the establishment of organic disease. Another effect of this treatment, which I shall have occasion to point out in more aggravated cases, was slightly manifested in the present instance; I allude to a distorted condition of the os uteri, apparently the result of unequal contraction of the lower part of the cervix, so that the os is dragged out of its usual direction. In this case, finding it turned somewhat forwards, I was reminded of the similar condition in common retroversion of the unimpregnated uterus, and feel convinced that it was an effect of the hardnesss of the cervix, arising from the irritation of the lunar caustic. In worse cases it is permanent, being produced by deep cicatrizations not only of the os and cervix, but of the upper part of the vagina; in slight cases, like the one under consideration, it would disappear as the part returned to its natural condition. I regret that I did not specially notice this point at my last examination.

One other result I must not omit, as I shall have frequent occasion to allude to it when existing in a far greater degree, and which, in this patient, was only to a trifling extent, viz., the sense of soreness and rawness of the os and cervix when touched. Three weeks had elapsed since the last application of caustic, and she had no leucorrhœa, so that there was every reason to suppose that the part was quite healed over; nor is this smarting sensation necessarily produced by passing the finger over a part to which caustic has been recently applied—it is a slight and early manifestation of that morbid sensibility which, in its more severe forms, is marked by those paroxysms of pelvic pain and neuralgic darts of acute suffering, which seem to have their seat in the more immediate vicinity of the spinal cord.

The treatment was according to the indications which I have stated, viz.: to strengthen the general health, and soothe local irritation; and was followed with the best results.

CASES ILLUSTRATING THE ETIOLOGY AND TREATMENT OF EPILEPSY.

By HENRY HUNT, M.D.

Although epilepsy has engaged the earnest attention of physicians from the earliest ages to the present time, the indiscriminate manner in which remedies are still applied for its relief, and the uncertain result, I might almost say the utter want of success, attending their operation in most instances, clearly proves that little progress has been made towards a right understanding of the causes and nature of this dreadful malady. A great diversity of remedies and modes of treatment have been suggested for its cure, which, though apparently successful in some cases, have so entirely failed when more extensively employed, as to render it very doubtful whether the subsidence of the disease could ever be fairly attributed to their influence. Yet so many apparent cures are recorded, so many examples in which the disease has ceased spontaneously have been observed, as to encourage a hope that a more successful plan of treatment than any at present known may still be discovered. To attain this desirable object, however, it appears to me that our attention ought to be more especially directed to the state of the general health of such subjects, in order to ascertain if there may not be some peculiar condition of the system capable of engendering a predisposition to epilepsy; as is the case in gouty patients, in whom we find that the accumulation of a certain virus in the blood produces a liability to attacks of that disease. As the following cases seem to throw some light on this important subject, to support the view of it I have just expressed, to afford hints which may aid us in investigating the nature of the peculiar morbid condition in which I hope to show this predisposition in some cases consists, and to suggest a more successful mode of treatment than has hitherto been practised, I am induced to publish them.

That the reader may see the process by which I have arrived at my conclusions, and be enabled to judge for himself how far they are well grounded, I will relate the cases in the order they occurred to me; appending to each a few remarks bearing upon those points to which I wish more especially to call attention.

Case 1.—I was requested in September of 1847 to see a young lady, who had been suddenly attacked with an epileptic fit at the dinner-table. I found her lying insensible, breathing heavily, and bleeding at the mouth from having bitten her tongue during the convulsion.

I was informed that this lady had enjoyed excellent health until about the age of 15; it then declined without apparent cause. She became listless and disinclined to exertion, either

of mind or body; her naturally fair and transparent complexion lost its clearness; peevishness and irritability gradually took the place of great amiability of disposition and gentleness of temper. She slept heavily, but generally awoke unrefreshed, and with a dull headache. The bowels were usually constipated; the alvine discharges were of an abnormal character, being either dark and offensive, or of the colour of clay; the urine was pale and plentiful, especially a few days before a fit. The catamenia regular, but scanty, and of a very dark colour. All these points had been carefully noted by her former Medical attendant. The general health had been in this disordered state, but gradually getting worse, for more than a year, when she was suddenly seized, after eating heartily of tough beef, with a violent fit, pronounced by her Surgeon to be epileptic. From this time fits of the same kind frequently returned, but at various intervals; sometimes daily, sometimes several weeks elapsed between the attacks, and they generally occurred after eating beef, or some other kind of not very digestible food. She had been skilfully treated, and her general health was quite restored; and she remained free from an attack of epilepsy for more than a year before I was consulted. But her friends informed me that they had observed her complexion had become again dingy, and that listlessness, fretfulness, and many other symptoms of the general disorder, which had preceded the first fit, had gradually recurred before the present attack.

On visiting my patient on the following day, I found she was quite unconscious of what had happened, only complaining of fatigue and stiffness of her limbs. The complexion was dark, the eyes slightly yellow, the tongue was loaded, and the pulse slow and labouring, and she complained of being heavy and stupid. In addition to these symptoms, the bowels were very confined, the abdomen hard, and unyielding to pressure.

I prescribed a brisk cathartic, which brought away a large quantity of undigested food and abnormal feculent matter, portions of which were almost black, while the larger portion was almost colourless; the urine was pale, clear, and showed only a slight trace of acid; its specific gravity was 1010. I am desirous that these last points should be borne in mind, for reasons which will presently appear. I attended this lady for several months, directing the treatment to the restoration of the general health, quite irrespective of the fits, as I considered them only as effects of the general derangement; and to accomplish this I endeavoured to excite a free secretion of bile by a steady perseverance in the use of brisk, but unirritating purgatives, and the nitro-muriatic acid; and by carefully regulating the diet, as well as to its quantity and digestibility, as to its nutritious quality. The fits recurred several times during my attendance, generally after dinner, and I observed they were always preceded by increased irritability of temper, an undefined fearfulness, and other symptoms of an abnormal state of the nervous system; they were invariably accompanied by a deficiency of bile in the alvine discharges, diminished acidity in the urine, and increased sallowness of the complexion. I also remarked that the fits were always more severe in proportion to the intensity of the nervous symptoms preceding an attack; that the nervous symptoms were stronger in proportion to the paucity of the bile secreted; and that when the bile was most deficient, the urine was less acid, and *vice versâ*.

As the functions of the liver were by degrees restored, the intervals between the fits lengthened, and their severity was diminished, until only the premonitory symptoms were occasionally felt. These at length ceased to recur, and I hoped a permanent cure had been effected.

At the expiration of a year, however, the fits returned, and they were preceded as before by the same kind of derangement of the general health. An attempt was then made in the country to afford relief by a course of saline aperients, consisting of the sulphate of magnesia and bicarbonate of soda. During the exhibition of these remedies all the symptoms increased, the fits occurring with great violence almost every day, and for several successive weeks. When the anxiety of her friends was at its height, a severe attack of bilious cholera supervened, during which an immense quantity of bilious matter was discharged, and from that time, a period now of seven years, the fits, and all the other symptoms, have disappeared, and the lady has remained in perfect health.

Although this case is, in some respects, of common occurrence, it offers many points of interest in reference to the subject before us.

Whatever may have been the exciting cause of that derangement, it is evident that the first deviation from health was the suspension of the functions of the liver. But it may be asked, How could such a series of morbid actions have been produced by the mere suppression of the secretion of bile? I think this question may be answered, and in the following manner:—

The blood having been contaminated by the retention of the (uncombined) constituents of bile, was deprived of a portion of its stimulating properties; therefore, could not impart the necessary degree of excitement to the nervous system; hence the loss of energy, and the incapacity for exertion, so conspicuously displayed in this case from the commencement of the illness.

The loss of the natural clearness of the complexion was manifestly due to the deposition of some of the coloured ingredients of the retained secretion in the skin and subjacent textures.

The absence of acidity in the urine may be explained by the circumstance, that a considerable portion of the soda, which should have been excreted in the form of bile, passed off by the kidneys, neutralizing the acid in its transit through that organ. This is strongly supported by the fact, that the urine was always less acid when the secretion of bile was most deficient, and the contrary.

Apparently, the immediate or exciting cause of the first, and most of the subsequent epileptic convulsions, was the irritation excited by undigested food in the stomach, at a time when a predisposition to that disease existed in the system.

But it may be asked, If such a predisposition exists, in what does it consist, and how is it produced?

In endeavouring to answer these questions, I must remind the reader, that the primary cause of all the symptoms in the preceding case was a suspension, more or less complete, of the secretion of bile; and as bile contains, in its normal state, "a considerable proportion of soda, in some very loose state of combination" (Prout), it follows that, when the functions of the liver were interrupted, an accumulation of an undue quantity of soda must have taken place in the blood. We may therefore infer, that the blood in the preceding case contained an excess of that ingredient of the bile.

Now, according to Dr. Prout, whose accuracy of observation and skill in researches of animal Chemistry are rarely questioned, it appears that an excess of soda or potash in the blood, which he calls "the soluble incidental matters," acts on the nervous system in a very deleterious manner, and he alludes to this subject in several places in the third edition of his work on Stomach and Renal Diseases, but quite irrespective of the disease we are considering.

He writes at page 280: "The constitutional symptoms accompanying the various forms of urinary disorder now under consideration (those connected with the soluble incidental matters, soda and potash) partake of the characters of those accompanying the deposition of the phosphates, viz. nervous irritability displayed in various ways according to the idiosyncracy of the patient. In some individuals it assumes the form of spasm of the respiratory muscles," and other spasmodic affections. At page 223 he says: "There are some individuals who cannot take alkalies in any form. The peculiar effects produced by them were great nervous disturbance, particularly of the *cerebral functions*. In one gentleman the excitement produced by alkalies was so great as to border on delirium or mania. They seemed to act like a poison, and there was reason to believe, from the effects produced, that if their use were persisted in they would even lead to a fatal termination." Again, at page 224: "The effect of alkalies at all times in large doses, and administered at improper times, is injurious to the system"—(they) "produce serious disorder of the nervous system;" and it is worthy of remark, that the fits in the case I have related were much increased, both in severity and frequency, during the administration of the bicarbonate of soda and sulphate of magnesia."

If the correctness of Dr. Prout's observation be admitted, that an excess of soda or potash in the blood acts so injuriously on the nervous system, the next step is to inquire what is their *modus operandi*. To explain this point I shall again refer to the same authority, who states that, "In certain habits and under certain circumstances, they (the

alkalies) occasion a deposition of the phosphates in the urine;" at page 270, "The long-continued use or abuse of alkaline remedies will, in irritable habits, likewise produce a tendency to an excess of the phosphates in general;" and at 312, "The presence of magnesia (the phosphate of) in the urine is supposed to indicate destruction or mal-assimilation of a tissue intimately connected with the nervous tissues," "and the presence of phosphorus and its compounds to denote the destruction of the nervous tissues."

These disjointed remarks of Dr. Prout, when brought together, appear to have a very important bearing on the subject before us; and if their correctness be admitted, and they are taken in conjunction with those before quoted, they seem to offer a plausible answer to the question, how a predisposition to epilepsy may be produced; for we may reasonably infer—indeed, it seems to follow, almost as a necessary sequence—that if an abnormal excess of alkali in the blood causes the deposition of the phosphates in the urine, and the phosphates are derived from the disintegration of the nervous tissues, or, as it has been recently suggested, of the phosphoric oil, of which the brain is partly composed, the alkalies produce this effect by acting on those tissues, as they are known to do on the other living solids, by promoting their softening and absorption; and it is impossible that such a destructive process can take place, even to a limited extent, in the brain, spinal cord, or other nervous bodies, without exciting irritation, enfeebling their tone, and rendering them incapable of resisting the morbid influence of exciting causes of diseases. The post-mortem examination of the brains of epileptics somewhat tends to support the correctness of this hypothesis; for in a large number of cases the brains of epileptic subjects are found so softened, that it is impossible to strip off the investing membranes, without tearing away portions of the grey substance with them; while in other cases they are evidently shrunk and diminished in volume, and, although, in many instances, the epileptic brain is found to be firmer than natural, this may probably be the effect of the absorption of the softer, fluid, or oily portions of the nerve matter, which would necessarily cause the remainder to be relatively firmer than natural—a state equally abnormal and obnoxious to exciting causes of disease.

In my next communication I shall endeavour to show that an abnormal excess of alkali in the blood may not only produce a predisposition to epilepsy, but may probably cause the generation or retention of noxious matters in the blood, capable of exciting the convulsion itself.

[To be continued.]

CASE OF HYDROCELE CURED BY INJECTION OF TINCT. IODINII.

By Staff Assistant Surgeon, W. RAMSAY STEUART.

Private John Fallowfield, 2nd Battalion Rifle Brigade, aged 30, was admitted into the Hospital on the 14th October, with a large elastic tumour of the scrotum, about the size of an ostrich's egg, the skin of the scrotum being greatly thickened.

He states this was first caused by a strain eighteen months ago, on his return to Portsmouth from Chobham camp, also that four months after its occurrence it was tapped and a pint of serum withdrawn.

On the 15th October, a day after his admission, it was tapped a second time, and tinct. iodin. ʒij. injected into the sac (not being withdrawn). This caused but little pain or constitutional disturbance, and the tumour gradually diminished in size until the 30th instant, at which period both testicles could be distinctly felt of their normal size, thereby showing no diseased structure of these glands. On November 4, the fluid had re-accumulated, and was a third time drawn off to the extent of ʒii., and tinct. iodin. ʒii. again injected. Owing to the contracted state of the sac and the smaller extent of serous surface, on which the same quantity of iodine had to act, tumefaction of the scrotum, with considerable degree of pain, and constitutional excitement resulted, which readily yielded to antiphlogistic treatment.

This constitutional irritation had greatly subsided on the 7th inst., and there was less pain on pressure. The tunica vaginalis gradually diminished in size, and the man was discharged from the Hospital on the 8th of December; the testes being of their normal size, and beyond some thickening of the skin, which became redundant as the tumour contracted, the cure was perfect.

Aldershot Camp, December 19, 1855.

ON TRACHEOTOMY IN CROUP AND OTHER INFLAMMATORY AFFECTIONS.

By HENRY SMITH, F.R.C.S.
Surgeon to the Westminster General Dispensary.

In the spring of 1853, a paper was read by me on the subject of Tracheotomy in Croup, before the London Medical Society. A very large number of the Fellows were present, and earnestly and warmly discussed the question, as to whether the operation was justifiable or otherwise. Although my own experience of it had extended over several cases, all of which were unsuccessful, the opinion arrived at by the majority of the speakers was, that the operation was justifiable; almost the only Fellow who condemned it being a talented gentleman, who has been of late trying to persuade the Medical world, that a large number of those individuals who perish with symptoms of obstructed respiration, die from fibrinous concretions in the heart. This gentleman ridiculed the idea of attempting to save the life of a child labouring under croup, by opening its windpipe; referring death to fibrinous concretions of the heart.

The result of this discussion, and a remarkably successful recovery after tracheotomy, performed under desperate circumstances, upon an adult suffering from an allied affection, induced me to give further trial to this operation in several succeeding instances to which I have been called by my Professional brethren. The result, however, of the proceeding in cases of pure croup, has been disheartening, not one recovery having taken place; and doubts have arisen in my own mind of late, as to whether the Surgeon is justified in performing a very severe and dangerous operation, when the results are so unfortunate.

The extreme mortality from inflammatory croup under ordinary treatment, and the occasional recovery of a patient after the operation in this country, nevertheless would tend to encourage one not to give up the operation entirely, even if there were no other reasons; but, the remarkably interesting and valuable observations of Professor Trousseau, just published in the columns of the *Medical Times and Gazette*, will no doubt excite the attention of Surgeons in this country, and lead them more fully to the consideration of the causes which have tended to the general want of success after this operation. The fact of M. Trousseau having had fourteen successful operations out of twenty-four, more than one half, would teach us not hastily to reject tracheotomy; and if the disease be the same in this country as in France, then it is the bounden duty of the English Surgeon to employ this operation more frequently than he does at present.

The two main obstacles to success after tracheotomy in croup are, undoubtedly, the existence of inflammatory exudation into the trachea and bronchi below the situation of the artificial opening, together with a congested state of the lungs, in the first place; and secondly, the delay in operating; and it is a point worthy of consideration, whether the first objection may not, to a certain extent, be removed by obviating the second, in fact by proceeding to an operation at an earlier period, before the suffocating stage of croup has fairly set in. It is only reasonable and consonant with our pathological knowledge, to suppose that the unfavourable state of the lungs so often found after death, results from the obstruction higher up, and that these organs are rendered the more unfit for duty, in proportion as the disease advances, for it is found after death that in some cases, only one of the inferior lobes is congested or inflamed, whilst in others, when the disease has been more severe and has lasted longer, the greater portion of both lungs may be affected. It is reasonable to suppose that an earlier introduction of air, through an artificial opening, might prevent this, and thus give a larger proportion of cures.

But here we are at once presented with a serious difficulty, the too conscientious appreciation of which may cause all the difference as to the results of the operation in England and in France. It is impossible to decide, except in the very last

stage of croup, whether the patient will die or not; almost every practitioner must have met with some remarkable cases of recovery where a fatal result looked imminent, and this is the reason why tracheotomy is not used at an earlier period of the disease,—only a very few weeks ago, I was requested by Dr. Maurice Davis to give my opinion as to the probability of tracheotomy being required in the case of a young girl who had been suddenly seized with the most acute inflammation of the windpipe; I saw her at a period when the disease was at its height, when the distress was great, the sharp shrill inspiration as well marked as I ever heard it, and where remedies had not had much effect. After consultation the remark was made, that this was a case where, perhaps, to do it any justice the operation of tracheotomy should be performed at once, but at the same time the case was not so bad as not to leave scope for milder measures: the lungs were not much congested, and the general condition of the patient did not correspond with the obstruction in the windpipe; it was decided that the remedies employed, leeches, counter-irritation, and calomel, should be further continued; in a few hours amendment began, and the child recovered. Now if the operation had been done here, the patient would probably have recovered, but we have the certain proof that in this case at least it was not required.

Professor Trousseau has pointedly insisted upon the necessity of not delaying tracheotomy until it is too late, when in fact the little patient is suffering, not only from the mere distress of dyspnœa, but from the general depression induced by extreme obstruction to the breathing, and by the disorder of which, it may be, this is only a complication; hence it is to be inferred, that he operates much earlier than practitioners in this country, for generally it is not until the patient's condition is such as has been referred to, that we feel ourselves warranted in resorting to a measure which, in itself, may hasten death, and only promise a doubtful success.

The operation of tracheotomy in a child, is frequently talked of as though it were one of easy performance and one devoid of danger; but the number of casualties which have happened during the operation in the hands of experienced Surgeons, proves that this is a fallacy. It has fallen to my lot to perform tracheotomy many times in children, varying in their age from eleven months to six years, and this repeated experience has convinced me, that it may be one of the most trying and difficult the Surgeon has to perform. It is true, that in every instance I have laboured under the greatest disadvantages, several operations having been done on great emergency at night time; others, in dark rooms or kitchens, with but little assistance; but still it is for the most part under such disadvantages that we are called on to do tracheotomy, and this difficulty should constitute an element in the calculation, as to the operation being warrantable or not.

The paper just published by M. Trousseau, valuable and instructive as it is, concerning the mode of performing tracheotomy, the necessary precautions, the minutiæ of the process and the after-treatment, is deficient in one point, and that the most important, viz., as to the pathological conditions of the disease for which the remedy is proposed. He only shortly mentions the nature of the malady, speaking of it merely as croup, and using the term "diphtheritic infection;" it is to be regretted that the actual pathology of the disease so termed, was not distinctly pointed out, and it is to be hoped that this want may be supplied in a future communication from the pen of this distinguished Physician.

There is good reason, in the absence of this information, to believe that there is a distinction between the croup in England and in France, for in the majority of cases of the inflammatory disorder in this country, the trachea in its entire length is involved, and partially obstructed by a false membrane more or less dense, whilst in France, it appears that the species of croup termed *diphthérite*, and occasionally met with here, frequently attacks children. I have seen one or two well-marked instances following measles; on one occasion I opened the windpipe, on another it was my intention to do so, but the patient died from a sudden attack of dyspnœa before assistance could be brought; in neither of these cases was the trachea affected in any way, but a false membrane was observed in patches on the larynx, fauces, and tongue. It is in such instances, that tracheotomy performed sufficiently early, is not only justifiable but will probably be successful, and if the cases referred to by M. Trousseau are of the same nature, the reason of the wonderful success of his operations is in a great measure explained.

Dr. West, in his Lectures on the Diseases of Children, has dwelt upon this difference in the pathology of the disease, in the two countries, and has, I suspect correctly, explained the success of the operation in the hands of MM. Bretonneau and Trousseau, by stating that "in France, croupal symptoms are, in the majority of cases, induced by the extension to the larynx of false membrane, originally deposited on the fauces and soft palate, while the windpipe itself is comparatively seldom in a state of active inflammation, often altogether unaffected; and the bronchitis and pneumonia which, in this country, so often and so seriously complicate the disease, are there of less common occurrence (a).

Although in the several cases of true inflammatory croup, for which I have undertaken tracheotomy, the results have been very unsuccessful, the effect of the operation in two cases of another form of inflammatory disease of the throat in children, has been more encouraging, and has led to the supposition, that life may be not unfrequently saved by it. I allude to that condition which is sometimes seen after an attack of scarlet fever, when the glands of the neck become greatly swollen, or the fauces, tonsils, and larynx are affected with a violent inflammation, going on to ulceration and sloughing. These attacks are sometimes seen to occur in a child who has not the specific eruption of scarlet fever upon the skin, during the prevalence of an epidemic, or the throat symptoms become more fully developed after the patient has passed through the acute stage of the disorder. Three such cases have been under my observation in private practice.

The first was in a little boy, aged 4, who went through the acute stage of scarlet fever favourably; at the termination of this, violent engorgement of the tissues of the neck, suddenly, within a few hours, took place, great difficulty both in respiration and deglutition was experienced, and tracheotomy was suggested, but the parents did not seem to wish it, and the symptoms continuing, the child rapidly died.

The second case was as follows:—At 9 p.m. on January 2, 1855, Mr. Watson of Southampton, requested me to visit with him a little girl, aged 4, who was dying from obstruction to the respiration.

When I saw her she was almost in the last stage of collapse, the dyspnœa was most distressingly urgent, the face and neck were livid, the lips blue, the external jugular veins were enormously distended, the inspiration was accompanied by a loud and shrill noise, the pulse was almost imperceptible, and death was evidently close at hand. The interior of the throat was in a very bad state, the tonsils were greatly swollen, and, with the soft palate, were in an ulcerated and sloughing condition.

Mr. Watson informed me that the patient had been labouring under scarlet fever for about two weeks: during the course of the disease the throat symptoms were prominent, but had become much more marked as the eruptive stage had declined; for three days previous the dyspnœa had been very severe, but the extreme urgency had existed about six hours.

Tracheotomy was suggested to the parents, but the case was so unpromising that I hoped they would not accede to it; in fact, I told them that the child might die during the operation, and I felt that if any difficulty arose, in all probability death would happen. They wished it to be done: accordingly, assisted by Mr. Watson, I operated at once, fortunately opening the trachea in a few moments and without wounding any distended vein; the relief given was extraordinary, the child breathed with ease, sat up and took nourishment, although before, the difficulty of swallowing was excessive; the countenance became natural, and she fell asleep.

On the following day the relief continued, and was more marked when a clean double canula was introduced; the child took nourishment well, a strong solution of nitrate of silver was applied by means of a brush to the throat, and she was sedulously watched.

The relief to the breathing continued for some days, but great care was required to keep the canula unobstructed by frequent removal and cleansing; the condition of the throat materially improved under the local application of nitrate of silver, and strong stimulants internally. On the morning of the fifth day, the little girl was sitting up in bed, playing with

(a) West on Childhood. Page 232.

her doll, and although the tongue had become covered with aphthæ, strong hopes were entertained that she would yet recover. Unfortunately, however, an attack of capillary bronchitis suddenly set in, and destroyed the patient on the morning of the eighth day. I regret to state, that no post-mortem examination was made, therefore, much of the value of this case is lost; but the result of this operation was very encouraging:—here was a child who had been reduced by a serious attack of scarlet fever, to an extremely weak condition, suddenly brought to death's door by obstructed breathing, and yet life is prolonged for nearly a week by tracheotomy, performed under desperate circumstances. The fatal termination was the result of an accident, it may be said, for the sudden attack of bronchitis was due to the immediate contact of cold air with the lungs, and I have reason to believe, that this might have been prevented; the weather for the time of the year was very close, and the nurse and parents were constantly in the room watching the child, the apartment consequently became somewhat foul, and I requested them to open a window for a short time, my impression is, that the entrance of the cold air may have caused the mischief to the lungs.

The result of this case, however, determined me not to hesitate to adopt the operation, if a similar opportunity should offer itself; none such occurred until the 30th of November last, when Mr. Lloyd, of Great Russell-street, called me up at midnight to see a little girl, aged 5, who was suffering from urgent dyspnœa.

On my arrival, I found the child lying in its nurse's arms, breathing with great difficulty; its countenance was pale and somewhat livid, but there was not that great lividity of face, or blueness of the lips, which is the accompaniment of extreme obstruction to respiration; the difficulty in swallowing had been almost insurmountable, the child scarcely taking anything; on looking into the mouth, the tonsils and the uvula were seen to be enormously swollen and ulcerated.

It appears that this little girl had been somewhat suddenly seized with feverish symptoms and mischief about the throat and neck five days previously; the symptoms rapidly increased, and, notwithstanding most persevering and judicious treatment, the obstruction to breathing continued, and within the last few hours had much increased in severity; there was not any eruption of scarlet fever on the skin, but it was supposed that the child was suffering from the poison.

On a careful consideration of all the circumstances of this case, I could not quite make up my mind whether the symptoms were not due as much to want of nutrition, in consequence of the difficulty of swallowing, as to obstructed respiration; and it was determined that Dr. Theophilus Thompson should be called into consultation, and that the question as to operation should be decided by him. This gentleman, after having carefully examined the patient, gave it as his opinion, that she was suffering mainly from obstructed respiration, that the lungs were healthy, and that the operation gave the only chance of life. I accordingly performed it, some trouble was experienced in introducing the tube, and for a short time the patient appeared to be in a critical condition; however, she soon rallied, having lost but little blood, and in a short time the relief that was given was most extraordinary, the chest expanded well, the air was heard entering it, freely and softly; the little girl swallowed nourishment at once, fell into a sound sleep; after she woke she sat up, took milk-and-water, eagerly holding the mug in her own hands; and I left the house two hours after the operation, with the most hopeful feeling.

Early in the morning, however, of next day, she had a sudden change, became very restless, jumped out of bed, and then fell into a semi-comatose state. I immediately removed the tube, and found it partially blocked by mucus; it was cleaned and re-introduced, and soon after the appearance of the patient was remarkably altered for the better.

She continued in this improved state until evening, when she became very depressed, although she took nourishment with avidity, and continued in this state until eleven at night, when she died.

We were fortunate in obtaining a post-mortem examination, when we found that the lungs were in a very healthy condition as diagnosed by Dr. Thompson, the only exception being a congested state of the posterior part of the lower lobe, on the left side.

On taking out the whole respiratory canal, we found the base of the tongue and tonsils in a very bad condition, the latter were very large and ulcerated, and the uvula formed a prominent obstruction between them. On laying open the larynx and trachea, the parts about the entrance into the former were so changed by ulceration, that neither the vocal chords nor the ventricles of the larynx could be appreciated.

The trachea itself was intensely inflamed, and a dense false membrane extended beyond the bifurcation.

The great point in this case was the healthy state of the lungs, and it was that which warranted the Surgeon in performing tracheotomy. From the extreme rapidity of the attack, and from the very great depression of the vital powers, owing to the impossibility of administering more than a very small quantity of nourishment for some days, the child was in an unfavourable state for the operation; the free admission of air, however, gave extraordinary relief, and had the disease been confined to the fauces and upper part of the larynx, recovery would probably have ensued; but, although the lungs were in such a healthy condition, the existence of false membrane in the trachea complicated the case very much, and probably frustrated our efforts to save life.

We had strongly hoped that there was not any false membrane excreted, as in the instance of ordinary croup, seeing that the case in many points presented the same features which obtained in those patients who are attacked during, or subsequent to, the course of scarlet fever; the post-mortem evidence proves that, even in those instances when the disease is more fully developed at, and is apparently confined to, the fauces and entrance of the air passages, the trachea itself may be lined with an inflammatory deposit. If, however, it be clearly ascertained that the lungs are sound, that the morbid appearances are fully developed about the fauces, and death from obstructed respiration be imminent, I would not hesitate to resort to tracheotomy, and even if one life out of ten, or one out of twenty be saved, the Surgeon will have his reward.

14, Caroline-street, Bedford-square.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S AND GUY'S HOSPITALS.

MEMORANDA ON SYMPTOMS AND DIAGNOSIS.

(Cases under the care of Dr. WEST and Dr. OLDHAM.)

Brown Streak from Navel to Pubes not always a Sign of Pregnancy.—A single woman, aged 30, recently came under notice in Dr. West's out-patient's room at St. Bartholomew's in which this sign was extremely well marked. The band was about a third of an inch broad. That she was not, and never had been, pregnant, was all but certain, as the hymen was perfect. She suffered from a fibrous tumour in the uterine walls, and had had repeated hæmorrhages. It is worthy of remark that the areolæ of her nipples retained the natural light pink hue, not being in the least browned, nor having any prominent follicles. Dr. West remarked to his class that the case was a good illustration in proof of the fallacy of one of the signs most positively relied on as indicative of previous pregnancy. Uterine irritation, from any cause, was sufficient, he observed, to produce either the brown streak down the abdomen, or a dark arcola around the nipples. It was, therefore, precisely in the class of cases most likely to cause doubt that these signs failed to afford any reliable information.

Respecting the browning of the areola of the nipple, with increased size of its follicles, it is a fact familiar to all Surgeons, that it often occurs in connexion with tumours in the breast (especially the mammary glandular), and in patients who are not pregnant. This occurrence has been repeatedly illustrated by cases which have fallen under our notice at the different Hospitals.

Contractile Power a Sign distinguishing the Pregnant Uterus from all other Abdominal Tumours.—In a case some little time ago, under care in one of the Medical wards of Guy's Hospital, in which a consultation was held to

determine whether a large tumour in the abdomen of a young unmarried woman were a pregnant uterus or not, Dr. Oldham took the opportunity of showing to the Students that a certain power of contraction was possessed by the tumour which marked its true character. The patient's abdomen being well exposed, the outline of the tumour was seen to be less defined before manual examination, than it became afterwards. The hand being applied, the tumour at first felt soft and ill-circumscribed, rapidly, however, assuming under pressure a tense rounded form, becoming firm and resisting. The alteration from flaccidity to tension was very marked, and might, as Dr. Oldham observed, be taken as a trustworthy characteristic of a pregnant uterus, since there was no other tumour which possessed any power of altering its form when irritated by palpation.

Long-continued Secretion of Milk in the Breasts not connected with Pregnancy.—It is, we believe, a well-recognized fact that the mammary gland of the female may occasionally assume its secretory function quite independently of conception. The phenomenon is, however, very rare, and is usually a transitory one. Mr. John Dix, formerly House-Surgeon to the Derby Infirmary, lately mentioned to the writer the particulars of two very unusual cases, which came under his observation at that Institution. If seen by a Medical man unacquainted with the previous history, and especially if in connexion with an abdominal tumour, the symptom might easily have led to a very confident expression of an erroneous diagnosis. The first case was that of a girl, aged about 25, from whose nipples well-formed milk could at any time be easily pressed out. She was anæmic, and of a highly nervous and hysterical temperament. There was no reason for suspecting her to be otherwise than strictly chaste, nor were there any indications of organic disease of the ovaries or uterus. She was occasionally under Mr. Dix's observation for a period of at least two years, during the whole of which the secretion continued unabated, and would often escape spontaneously in sufficient quantity to wet her linen. The subject of the second case was a prostitute, aged 20, who had never been pregnant. With her likewise the secretion was quite abundant, and the milk, which was examined under the microscope, appeared well formed. She was under observation for some months.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING DECEMBER.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

Number of cases, 2; recovered, 1; died, 1.

Case 1.—A boy, aged 6, under Mr. Lawrence's care in St. Bartholomew's, having suffered from symptoms of stone almost from birth. A stone, about the size of half a walnut, and consisting of lithates, was removed. Excepting an attack of scarlatina, the boy recovered without drawback. *Case* 2.—A man, aged 60, very stout, under the care of Mr. Fergusson, in King's College. A large stone was removed by the usual operation. Twenty-four hours after the operation shivering occurred, and pain in one shoulder-joint began. Subsequently the pulse became intermittent, and there were profuse sweatings. Death took place on the sixth day. At the autopsy both knee and both shoulder joints were found distended with pus. The lungs, liver, and all the viscera were healthy.

HERNIOTOMY.

Number of cases, 14; recovered, 9; under treatment, 2; died, 3.

Case 1.—A woman aged 52, under the care of Mr. Cock in Guy's. She had been subject to an irreducible omental hernia for many years. Symptoms of strangulated bowel had been present for five days, and were well marked. The sac was large, and passed downwards and inwards in the thigh. When first opened, a mass was exposed which much resembled thickened bowel, but, which, on further inspection, proved to be omentum; it possessed strong and old adhesions. The adhesions having been divided and the mass turned aside, a second division of the sac was exposed, and behind and between the two, was a third and smaller pouch, which contained a knuckle of bowel. The gut was reduced without any division of stricture being necessary, the omentum having been turned aside. The omentum was in great part left in the sac. The woman recovered well, a large portion of omentum having sloughed away. *Case* 2.—A woman aged 46, under Mr. Cock's care in Guy s. Hernia femoral, strangulated 72 hours, of considerable size. The belly was full and distended, but the symptoms were not very severe. The stricture was divided without opening the sac, but subsequently a small puncture in the latter was unintentionally made. A large quantity of fluid escaped, but the contents of the sac were not exposed. The patient did very well for about two weeks, the bowels acting regularly, and the wound having all but healed. Since then, however, a severe form of Hospital gangrene has affected the wound, and opened it into a very large one. The sloughing has now stopped, and the patient is improving. *Case* 3.—A woman aged 43, under the case of Mr. Paget in St. Bartholomew's. Hernia femoral, small, strangulated 56 hours. The symptoms were well marked, but the condition was favourable; sac not opened. Recovered without a bad symptom. *Case* 4.—A woman aged 39, under the care of Mr. Birkett in Guy's. Hernia femoral. The taxis had been abused, and purgatives given. The operation was performed 12 hours after the first occurrence of vomiting, and 24 from the time of descent. The tumour was very painful, and there was great depression of power. The sac was not opened. Peritonitis occurred afterwards, and was treated by calomel and opium, and leeches. Recovery. *Case* 5.—A woman aged 52, in fair health, but the subject at the time of thecal abscess and phlegmon of the arm, was admitted into Guy's, under Mr. Birkett's care, with a strangulated femoral hernia. On the morning before admission, a Surgeon had succeeded in somewhat reducing the size of the tumour, by efforts at taxis, and since then, the symptoms which had been well marked, had somewhat subsided. The vomiting had entirely ceased, and food was borne upon the stomach. On the next day, however, although no very marked symptoms of strangulation had come on, yet the woman's aspect was bad, and Mr. Birkett determined to explore the tumour which remained. The sac having been opened, some blood-tinged serum escaped, and a knuckle of intestine was exposed. After division of the neck of the sac, the latter was reduced. The operation was 77 hours after the first occurrence of the symptoms, and 101 from the time of descent. She made a very slow recovery, but is now quite well, as regards the hernia. *Case* 6.—A man, aged 60, under the care of Mr. Lawrence, in St. Bartholomew's. Hernia scrotal, of moderate size; strangulated twelve hours. Sac not opened. Some suppuration in the adjacent parts followed the operation, but otherwise the man made a good recovery. *Case* 7.—A woman, aged 52, under the care of Mr. Lawrence, in St. Bartholomew's. Hernia femoral, of considerable size, strangulated eight hours. Sac opened. Recovered without an ill symptom. *Case* 8.—A woman, aged 65, under the care of Mr. Wormald, in St. Bartholomew's. Hernia femoral; strangulated five hours; stricture very tight. Sac not opened. Some peritonitis followed, but it was subdued, and the patient recovered well. *Case* 9.—A pale, rather delicate woman, aged 40, was admitted under Mr. Simon's care, into St. Thomas's, suffering from prolapsus uteri. She was not known to have hernia, but for four days past there had been vomiting and constipation. The matters ejected from the stomach had been stercoraceous during the last day. On examination, a small, very tense femoral hernia was discovered. In a warm bath the prolapsed uterus was returned, but the hernia could not be reduced. In the operation, the sac was opened, the attempt to avoid doing so having failed. The intestine when exposed was of a dark red colour, and contained impacted masses of fæces. Recovery, without a bad symptom. *Case* 10.—A woman, aged 35, under Mr. South's care in St. Thomas's. Hernia inguinal, of considerable size. It had been down a fortnight, and during that time the bowels had not acted, and there had

been repeated vomiting. The sac was opened and found to contain intestine, the greater part of which looked healthy, but which showed in one spot rather suspicious appearances. Reduction was effected, and on the following day a motion was procured by means of an injection. Very slight tenderness of the abdomen followed. In spite of a sharp attack of bronchitis, the woman recovered well. *Case* 11.—A man, aged 46, under the care of Mr. Lloyd, in St. Bartholomew's, on account of a strangulated scrotal hernia. The taxis had been forcibly attempted before admission. There were at first no symptoms of strangulation, but no success was obtained from the attempts at reduction. After a while urgent vomiting set in, and about thirteen hours after the descent, it was determined to operate. The sac was not opened. The stricture appeared to have been caused by a transverse band of fibres, which crossed the neck of the sac in close contact with it. The wound is healed, and excepting a severe asthmatic attack, the convalescence has been unretarded. *Case* 12.—A woman, aged 78, under the care of Mr. Lawrence, in St. Bartholomew's. Hernia femoral, of considerable size; strangulated six hours. The sac was opened, the stricture being at its neck. The intestine was found much congested, and there was also a large mass of omentum, which latter had to be cut away before reduction could be effected. Death from acute peritonitis followed sixty hours after the operation. At the autopsy the strangulated portion of bowel was found quite healthy. *Case* 13.—A woman, aged 63, under the care of Mr. Coulson, in St. Mary's. Hernia femoral, strangulated one week. The existence of the hernia had not been suspected until the day of admission, although there had been vomiting for upwards of a week, and it had been stercoraceous for three or four days. The bowels had acted slightly after an enema on the day before admission. The taxis under chloroform having failed, the operation was resorted to. The sac was opened, and found to contain omentum with a knuckle of but slightly-congested intestine. The woman went on favourably, until a few hours before death, which occurred on the fourth day. At the autopsy the evidences of extensive pelvic peritonitis were found, but no perforation of the gut could be discovered. *Case* 14.—A male infant, aged 10 months, under the care of Mr. Pollock, in St. George's. Hernia inguinal, strangulated twelve hours. The sac was opened, and found to contain a large coil of small intestine and much fluid. The infant at the time of the operation was in fair condition, and the gut was not inflamed. On the second day symptoms of peritonitis supervened, and death occurred on the fifth. At the autopsy extensive peritonitis was found, but there had not been much inflammatory effusion.

LIGATURE OF ARTERIES.

Case 1.—A man, aged 36, under the care of Mr. Lawrence, in St. Bartholomew's, on account of a popliteal aneurism, the size of a small orange. The disease was known to have existed for about two months. Its pulsations were easily controlled by pressure on the femoral. The man was in fair health. Mr. Lawrence decided not to make any trial of the compression plan. Ligature of the femoral was performed in the usual way. Not a single bad symptom followed. The tumour collapsed, and quickly solidified. The ligature separated on the twenty-first day, and the wound shortly afterwards healed. *Cases* 2 and 3.—In these, both under care in King's College, on account of wounds of the fore-arm, ligature of the radial in one, and of the ulnar in the other, was performed. In both, the wounds healed well.

AMPUTATIONS.

Number of cases, 10; recovered, 7; under treatment, 2; died, 1.

Case 9, of last month's report, has since ended in death.

Double Amputation.—Case 1.—A confectioner, of very irritable constitution, aged 35, was admitted into St. Thomas's, under the care of Mr. Le Gros Clarke, having sustained severe injuries to both legs in a railway accident; in the right, there was compound comminuted fracture of both bones, with great laceration of the soft parts; and in the left, although there was no wound, yet the bones were comminuted for several inches, and the surrounding parts disorganized by contusion. Primary amputation of the right leg, below the knee, was performed, and several days afterwards the left was also removed. The man had at first refused to submit to the amputation of both. Both stumps are now fast healing; the right one has done much the best, the left having remained for some time in a sloughy state. At the end of a fortnight, secondary hæmorrhage from the left occurred, to the extent of nearly a pint. The man may now be considered quite out of danger.

Of the Thigh.—Case 2.—A woman, aged 22, under Mr. Fergusson's care, in King's College, on account of osteo-chondroma of the tibia. The tumour involved almost the whole length of the bone, and had been gradually increasing for a year and nine months. Amputation through the thigh. Recovery. (The specimen was shown before the Pathological Society.) *Case* 3.—A woman, aged 22, under the care of Mr. Borlase Childs, in the Metropolitan Free, on account of a large fibro-cystic tumour, involving the condyles and lower part of the shaft of the femur. She was in fair health, and the disease had existed for about three years. Amputation through the middle of the thigh. Recovery. *Case* 4.—A woman, aged 32, under the care of Mr. Lawrence, in St. Bartholomew's, on account of a compound fracture of the femur, extending into the knee. From long previous disease the limb had been rendered useless, by anchylosis of the knee, with contraction, and it was greatly wasted. Primary amputation. Recovery. *Case* 5.—A delicate girl, aged 12, under the care of Mr. Birkett, in Guy's. She was first admitted in September, on account of abscess about the trochanter of the left femur; extensive suppuration followed, and the deformity became so great as to resemble dislocation. The displacement, however, might, on careful examination, be proved to result from spontaneous fracture of the bone, just below the trochanter. A portion of necrosed bone was removed. Subsequently, the girl's health giving way, amputation was determined on. In the operation, the whole length of the shaft of the femur was taken away. The upper extremity of the bone being buried in soft parts was not seen, but to the touch it felt sound. The girl has recovered, but still remains feeble. *Case* 6.—A woman, aged 36, under the care of Mr. Lawrence, in St. Bartholomew's, on account of diseased knee-joint, of six years' standing. At the time of the operation the patient had but just recovered from an attack of erysipelas, and was extremely low. Circular amputation. Recovery without an ill symptom. *Case* 7.—A muscular man, aged 37, was admitted, under Mr. Simon's care, into St. Thomas's, his right knee having been crushed by the fall of an iron safe. Primary amputation was performed. The stump, during the first fortnight, did well, healthy suppuration was established, and the ligatures came away. On the fifteenth day a rigor occurred; after this all the symptoms of pyæmia were developed, and death followed on the twenty-fifth day. At the autopsy the veins of the stump were found filled with pus, the iliac also being affected up to its junction with the cava. In the lungs were numerous purulent depôts, but none in any other viscera.

Of the Leg.—Case 8.—A man, aged 37, in poor health, under the care of Mr. Cock, in Guy's, on account of malignant disease of the tarsal bones. From the history it appeared that the original affection had been simple caries, and for this several operations, involving the gouging out of portions of the os calcis, etc. had been performed by a Surgeon out of the Hospital. The cancer, which was a fungating form of the medullary, appeared to have been developed in the wound left by the last operation; it had bulged on both sides the ankle. Amputation, two inches above the ancle, was performed. The stump did remarkably well for a fortnight, and was all but healed when it was attacked by hospital gangrene. The sloughing was arrested by continued irrigation with warm water, and the stump is now again healing. *Case* 9.—A woman, aged 43, under Mr. Lawrence's care, in St. Bartholomew's, on account of disease of the ankle-joint of five years' duration. Amputation through the leg by posterior flap. Severe secondary hæmorrhage. Recovered.

Of the Upper Extremity.—Case 10.—A feeble man, aged 60, under the care of Mr. M'Murdo, in St. Thomas's, on account of disease of the wrist and carpus. He was much reduced in strength by long-continued suppuration. Amputation through the forearm. Recovery.

EXCISION OF JOINT.

Case 1.—A girl, aged 14, under Mr. Fergusson's care, in King's College, on account of disease of the elbow-joint.

Resection of the entire articulation was performed, the H-shaped incision being adopted. The case is doing remarkably well.

[To be concluded in our next.]

Note.—Several cases for it having been promised which we have not yet received, the conclusion of the "Series illustrating the connexion between Bronzed Skin and Diseased Supra-Renal Capsules" is deferred for a few weeks.—J. H.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 81.—Source of Limpid Exudation from the Ear after Injuries of the Head.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In a paper in *Pathological Transactions*, Vol. VI., Mr. Henry Gray describes a case of fractured skull, with limpid oozing from the ear; and seems to cut off every conceivable source from which such oozing has been presumed to proceed. For instance, according to him, it was neither saliva, nor serous secretion from the cavity of the arachnoid, nor yet sub-arachnoid fluid; nor yet serum of the blood; and it is said there was no fracture of the temporal bone; yet the membrana tympani was ruptured.

Now does this liquid really come from nowhere; or did Mr. Gray make a mistake? I am, etc. Thaumaturgus.

Medical Times & Gazette.

SATURDAY, JANUARY 26.

CASE OF WALTER PALMER.

We continue, according to promise, our account of the Rugeley mysteries, in order, as we stated, that our readers may trace the successive points that are brought out in evidence, and may possess, for future reference, a record of transactions which must of necessity be constantly referred to hereafter in the annals of Medical Jurisprudence.

The case of Walter Palmer is this:—It is suspected, or alleged, that his death was compassed or promoted by his brother William; and that the motive for this supposed crime was the desire to obtain a large sum of money, for which Walter Palmer's life was insured.

Our position as Editor of a leading Medical Periodical, enables us to obtain, from many sources, authentic accounts of the evidence which has been, as well as of that which will be, brought forward on various sides of the case; but we deem it our duty not to divulge any matters of criminatory importance before they are delivered as testimony in open court. We shall take the alleged facts as to Walter Palmer's death first, reserving the important particulars as to the insurances, in order to see if they are made public before we go to press.

Walter Palmer was aged 32, said to be of easy temper, unfortunate in business, addicted to drink, and, on this account, living away from, but seemingly not on bad terms with, his wife, a lady whose misfortunes and straightforward character entitle her to all due sympathy and respect. The account we have of him is that, in 1852, '53, and '54, he had been labouring under great enlargement of the liver, dropsy, vomiting of blood, and pleuro-pneumonia—the diseases of drunkards *par excellence;* moreover, that he had suffered from two distinct attacks of *delirium tremens;* and yet, that his life was insured for £13,000 at a heavy premium by the Prince of Wales Office, in January, 1855. During the spring of 1855, Walter Palmer was seen by several Medical gentlemen, and by other witnesses; and from their united testimony, we gather that his health was then not so bad, in outward appearance, as might be imagined from the effects of previous intemperance, and that his habits were temperate for him, although far from temperate in the abstract. For example, when on what one witness called the "sober tack," his allowance was half or three quarters of a bottle of gin daily; and yet, during the months between January and July, 1855, it must be remembered that repeated attempts were made to increase the sums for which his life was insured.

In the month of July, we get a more explicit and vivid picture of him; for, on the 7th of that month, Mr. Henry Day, surgeon of Stafford, was called in to see Walter Palmer, by William Palmer. The latter described his brother as being exceedingly ill through intemperance; that this was a source of great anxiety to the family, and that Mr. Day would earn their everlasting gratitude if he could induce him to reform. Mr. Day appears to have visited his patient, to have discovered chronic inflammation of the lungs, and to have prescribed medicines well suited to the patient's malady and habits. The patient seems at this time to have been in a state of recklessness; "not clean" in his person; and refusing to take the serious advice which Mr. Day very properly gave him. On the 10th of August, Mr. Day's opinion of his health may be gathered from the fact, that he told him that "he would some day shut up like a knife,"—a prophecy destined to speedy fulfilment;—and as to his mental condition, Mr. Day affirms that he never could tell whether he was speaking the truth or not.

Hence it is quite vain to attempt to interpret a suspicious observation made by Walter Palmer to Mr. Day, about the 10th or 12th of August, to the effect that some pills which he had taken were "twisters." Now, Mr. Day had given no pills; and it has been surmised that William Palmer gave his brother, surreptitiously, some pills intended to do him no good, pretending that they came from Mr. Day. But the mental condition described by Mr. Day renders it quite impossible to say, first, whether Walter Palmer meant what he said, or said what he meant; secondly, if so, whether it was or was not true. Very little can be built upon this.

Mr. Day's attendance ceased, for a time, on the 31st of July. After this, it appears that Walter Palmer went to Liverpool with his wife, and remained four days, during which time she describes him as *perfectly sober*. But, on his return to Stafford, on the 8th or 9th, and from that time to his decease, on the 16th, there is but one account from all who saw him, and that is, that he was night and day in a state of constant brutalizing intoxication; day after day poisoned by immense quantities of gin; vomiting every morning; eating "an ounce out of a mutton chop" for his dinner, going to bed with a gin-bottle at his elbow, and not sober when he woke in the morning. On the 10th of August Mr. Day again saw him, and repeated his visit at intervals up to the 16th, on which morning the last act of this tragedy took place. Mr. Day being called to him on that morning, found him *in articulo mortis*—countenance bluish, convulsive twitchings of left side of face; pulse gone; a little yellow liquid running out of the corner of the mouth, which smelt like brandy-and-water;—and there was an end of Walter Palmer!

Thomas Walkeden, a man with whom Walter Palmer lodged, and whose account of the habits of the deceased, and of his own occupation in supplying him with drink, is truly horrible, describes, on the morning of the 16th, "a sudden change in his face, which became black for about half-a-minute; his eyes flushed in a peculiar way, and he had a difficulty in breathing." This change had been noticed by

Walkeden previously, when Walter had been drinking hard, and is not a bad description of threatening eoma.

From the facts foregoing, it was natural enough that Mr. Day should give, as he did, a certificate that death was the result of apoplexy, arising from visceral disease; and probably most of our readers will agree with Mr. Robert Hughes, one of the Medieal witnesses, that the patient was sufficiently *poisoned* with ardent spirits to put an end to his life.

But there remains in the background a series of unexplained circumstances as to the eonduct of William Palmer. How any man, within six months, eould repeatedly concur in proposing such a life for insurance, we know not, nor does it much matter. Graver matter remains. On Tuesday, August 14, two days before his brother died, William Palmer is sworn to have bought prussie acid at Wolverhampton. On the same day he gave two bottles to the "Boots" at the Grand Junction Hotel at Stafford, to be taken care of. On August 15, he asked for the bottles, took them into the stable, was seen by the "Boots" and the Landlord to pour a liquid out of one of them into another bottle, and add to the contents of one a colourless liquid, like water. He said that his brother was very ill, that he was going to take him "something stimulating;" that Mr. Day did not know his brother's constitution so well as he did. He was with his brother on the morning of the 16th; and the "fit," which carried him off in half-an-hour, eame on while William Palmer was there.

Such an act was unprofessional towards Mr. Day, and suspieious in itself. The accounts as to the number and date of his visits to his brother, during the last few days of his life; his procuring brandy for a man already dying of gin; his not sending for his brother's wife—all these points want clearing up; and no doubt the kind of doubts hanging over the case indueed the jury, notwithstanding the evidence that the deceased had taken spirits enough to poison twenty men, to return a verdict to the effect that Prussic Acid had been administered by William Palmer.

Be it remarked, that all that is substantiated by evidence is, that the cireumstances of Walter Palmer's death *are not incompatible* with the hypothesis that prussie acid was administered.

Of course the verdict of the coroner's jury, like that of a grand jury, must be taken to intimate no more than that there is *primâ facie* ground for further proceedings, in the course of which we are bound charitably to hope that William Palmer will be able to clear himself from the horrible suspicion which now rests upon him.

Here we must pause, with a passing allusion to the "Boots," who declares that some brandy, which William Palmer gave him after his brother's death, made him sick. We know for a fact, and ludicrous enough it is, that almost everybody, or rather every blackleg, who has eaten or drunk at William Palmer's table, now pretends to recollect that he tasted something odd in the brandy-and-water, or that he felt sick in the night!

THE WEEK.

The Vestries under the New Metropolis Local Management Act still linger on without electing their Medical Officers of Health, except in a few eases, the results of which we have recorded. The Act came into full operation on the 1st of January, yet now, at the end of the month, many of the Vestries have not even agreed upon the salaries which they intend to offer. We are informed that in some districts a preliminary struggle is being carried on between those who wish to make the Medical office respectable, and to remunerate adequately the Medical Officer, and those who wish merely to throw the performance of the duties upon the existing District Parochial Medical Officers, and to pay the latter a minimum of salary. In contrast to this short-sighted policy, we are happy to learn that the Putney district intends to offer £400 or £500 a-year to their Medical Officer, and to increase the salaries of the District Medical Officers by £50 a-year, to secure their co-operation in the work of Sanitary Reform. Such is the report which has reached us, and although we believe it to be well founded, we almost fear that it is too good to be true.

In a letter, which is published in large type, in the *Times* of Tuesday, it is stated pretty broadly that an extensive measure of Reform is to be coneeded to the Medical Officers of the Army. All ranks of the Medical Department are to participate; the full and half-pay are to be increased, the period of service entitling to retirement is to be shortened, honorary rewards are to be conferred, and Medical C.B.'s and K.C.B.'s are to appear in the *Gazette*. The writer of the letter, true to the principles of the leading Journal towards Dr. Andrew Smith, takes eare to show that that gentleman has had no hand in bringing about this desirable change, although he seems to fear that he may be one of the C.B.'s or K.C.B.'s of the new department. We can only say that if Dr. Andrew Smith has done his duty, as we believe he has, and if he has suecessfully refuted the charges brought against him, as he is admitted to have done, then we see no reason why he should not be rewarded and honoured by the Government which he has faithfully served.

Considerable attention has been drawn to the fact that, in raising Mr. Baron Parke to the Peerage by the title of Baron Wensleydale, the dignity has been conferred upon him only for his natural life. As the noble and learned Lord is now advanced in years, and has no male issue, it is evident that the terms of the patent of his nobility ean be of little moment to himself; but the somewhat unusual course pursued in this case has given rise to the rumour, which is probably well founded, that it is the intention of Her Majesty to create Peers for life from among those members of society who have been distinguished for talent, learning, or other high mental qualities. If such be the case, we may fairly hope that our own Profession will receive some share of the honours thus bestowed; and, indeed, we never eould understand why Medical men should be entirely excluded from the Peerage, while the Church and the Bar have contributed so many distinguished ornaments to that noble assembly. Perhaps there is "a good time eoming" for our Profession.

We are happy to find that the information sent us last week with regard to the symptoms experienced by Dr. Garrod was somewhat exaggerated, and in part incorrect. Although Dr. Garrod suffered from a very disagreeable dose of belladonna, he had no delirium or loss of eonsciousness; he tasted the infusion under the idea that it was ash-leaf tea (the leaves having been sold for such), for the purpose of ascertaining if it were fresh, and not with a view of making any "experiments upon himself." Within a few days Dr. Garrod was in perfect health, and, in fact, has seen his private patients daily since the occurrence, although he absented himself for a short time from his Hospital duties; he has suffered from no loss of memory or any other mental disturbance. Dr. Garrod promises in a few days, for this Journal, a detailed account of the effects which followed the exhibition of belladonna upon his patient, which he thinks will prove of some interest to the members of the Medical Profession.

While we are almost surfeited with eulogies from a certain quarter, of the office and character of Coroner, whose exist-

ence is declared to be a kind of palladium of British liberty, we await with impatience an explanation of the fact, that Mr. W. Webb Ward, Coroner of Stafford, is alleged to have received letters from William Palmer, and a present of game during the inquest upon Cook in November last. The one letter which has been published, contained information confessed to have been fraudulently obtained by the Postmaster of Rugeley from a letter by Dr. Taylor, and some vastly convenient suggestions as to the right kind of verdict to be returned. We have heard of one of the Judges, who had partaken of a haunch of venison which a gentleman of landed property was accustomed to send every year for the Judges' table at the assize towns, and who refused one year, when he had to try a cause in which this gentleman was interested, to go on with the case till the venison had been paid for. This would have been a good preeedent for the Stafford Coroner.

The inquest on Mr. Waugh, who was shot in the street last week, has terminated in a verdict of wilful murder against the assassin, Westron, who has been committed to prison, both upon the Coroner's warrant, and the committal of the police Magistrate. The solicitor who watched the proceedings on behalf of Westron, while reserving his defence for the trial in a superior Court, stated that no motive existed for the murder of Mr. Waugh, and that Westron was a confirmed lunatic; his father and uncle had both destroyed themselves, when insane; his aunt had died insane in a lunatic asylum; and he himself had been turned out of various lodgings, on the ground that he was mad, and, on one occasion, he had thrown open the window, and set fire to the room, in order to "destroy the devil." In the investigation before the Magistrate, a letter from Westron to Mr. Waugh, dated October 11, 1855, was read, and, in our mind, the contents clearly show insanity on the part of the writer. The paper on Criminal Responsibility by Dr. Semple, which we published last week, has a peculiar applicability to cases of this description; and we sincerely hope that these lamentable occurrences may be prevented in future by a more careful attention to the treatment of lunatics. We are happy to quote the very judicious remarks of Mr. Wakley, the Coroner, in summing up the case to the jury. If the man were mad, then, said Mr. Wakley, "he could only lament that a man in such a state of mind should have been allowed to go at large. Persons brought before police-courts, and charged with deliberate threats directed against life, ought to lose their liberty for so doing. Those who were the objects of such threats could not consider their safety secured by the manner in which cases of the kind were now disposed of."

The election of Medical Officer for the Chelsea District has just terminated in the appointment of Dr. Andrew Whyte Barclay by a majority of one over Dr. B. W. Richardson, the Editor of the *Journal of Public Health*. While congratulating Dr. Barclay on his appointment, we cannot but feel that Dr. Richardson occupied a very honourable position, as he rested his claim solely on his testimonials, which were very high. We understand that the Vestry of St. George's in the East has fixed the salary of its future Medical Officer at £200 per annum, *with a prohibition from practising*. This we conceive to be bad policy, as no man in a good position would sacrifice his chances of Practice for such a sum. If we are correctly informed, there is a fierce contest going on in Paddington between a small minority of the Vestry, and the majority who have taken the judicious course of referring the testimonials of the candidates to gentlemen of high standing in the Profession. With this excellent plan it would appear that the minority are dissatisfied. In the Bow and Poplar District, there are to be two Medical Officers of Health, each having a salary of £120 per annum. In the Holborn District, the salary offered is £200 per annum, without restriction as to private practice.

In a communication from Dr. R. Dundas Thomson, published in a Medical contemporary of the 12th January, we read as follows:—"It is an interesting fact, not undeserving of notice in this place, that the regular registration of the climate of the Metropolis of the British Empire for the last two years, but for a private individual would have been in abeyance; and that these observations would probably not have seen the light, except for the facility with which they have gained access into the pages of the *Lancet*. Should the positions now vacant in the different parishes be filled by good observers, we may expect to have, in the course of time, valuable data for the comparison of urban and suburban climates." The foregoing paragraph forms part of the introduction to the "Fourth Quarterly Meteorological and Chemical Report at St. Thomas's Hospital for 1855, by Robert Dundas Thomson, M.D., F.R.S.L. and E.," etc., etc. We draw attention to it, not for the purpose of censuring the bad taste evinced in the employment of a scientific report as the vehicle for a piece of uncalled-for self-praise, but rather because, notwithstanding the inconsistency of the statements which it contains, with facts well known to the Profession, it may serve to mislead the Vestrymen of St. Marylebone, for whose eyes it is possible that it may have been intended. Had it not been for Dr. Thomson, "the regular registration of the climate of the Metropolis of the British Empire for the last two years would have been in abeyance"! Now during the years in question, no fewer than four observers in the Metropolis have contributed to the Meteorological Tables published by the Registrar-General. Since January, 1853, the Meteorological Reports of St. Mary's Hospital have appeared regularly every quarter, which example was followed by St. Thomas's Hospital a year later. Yet, says Dr. Thomson, his "observations would probably not have seen the light, except for the facility with which they have gained access into the pages of the *Lancet*." The truth seems to be, that the "interesting fact" recorded is very like an electioneering juggle; and we regret that a gentleman so greatly distinguished as Dr. Dundas Thomson should in any way lend himself to a course of conduct which may, by prejudicing his election, produce an effect contrary to what was intended. In the same number occurs a letter, which exhibits internal evidence of its authorship, in a style which has long been well known to constant readers. Beginning with empty praise of impartiality, and ending with "Justitia," the writer feels himself called upon in the middle wholly to ignore all the other candidates, and takes upon himself, on behalf of the Vestrymen of Shoreditch and Marylebone, to prejudge a question, of the merits of which they are after all the sole arbiters. We shall only mention in conclusion the opportune inquiries of certain anonymous Vestrymen and Householders, who are graciously informed that Doctors Barnes and Thomson are the only candidates, in electing whom they would not be betraying the interests committed to their care.

At the late meeting of the Downpatrick Board of Guardians, in answer to a question put by Colonel Forde, the Master said he gave the paupers treacle whenever the milk was not of proper quantity, at the contractors' expense, and stated that the "doctor" considered that treacle was a sufficient substitute for milk, as it was considered quite wholesome. Now, this may be all very satisfactory at a meeting of an Irish Board of Guardians; but we would

advise them to try the experiment on any of their own unweaned infants which may be at hand, and they would soon find the difference between an article which is alone sufficient to support and increase the growth of the young, at once supplying materials for the formation of the osseous, fleshy, and liquid portions of the body, and a syrup which is merely the residue of the juice of the sugar-cane after it has been subjected to all the operations for extracting sugar from it. Verily, one half the world knows not how the other half *lives!*

REVIEWS.

Digestion and its Derangements: the Principles of Rational Medicine applied to Disorders of the Alimentary Canal. By Thomas K. Chambers, M.D. London, 1856. Pp. 552.

It is not many years ago that the great authority upon all matters relating to digestion was Dr. Beaumont,—we mean gastric digestion; for all that went on beyond the pylorus was matter of mere speculation. Baron Liebig, and his ingenious formulæ, whereby it was demonstrated how easy a thing it was, by the assistance of the elements of water, to convert any proximate principle into any two or more other principles you please, were then in the ascendant. Now, if we hear of our transatlantic friend at all, it is quite an agreeable surprise, for, much as we are indebted to him, he was but the first of a series of enthusiastic inquirers, to whom we owe yet more; and the hypotheses of the Munich Professor have been superseded by the discovery of facts, which, little as they may be connected together at present, are invaluable as eternal truths, which must each in time find their proper place in that theory of life, the faint outline of which is scarcely at present capable of being traced. But notwithstanding the present state of confusion, arising from the surrender of our old ideas, and the discovery of new and startling facts, we are quite willing that the attempt should be made to apply the late discoveries in physiology to the explication of pathological problems, so long as the passage from one to the other is logically made, and no more is assumed as true than is absolutely proved, and physiological facts are traced no farther than they can be legitimately connected with their pathological relations. Now, the aim of Dr. Chambers is of this kind; his work consists of two divisions, the one physiological, the other pathological. The physiological contains a very excellent *résumé* of the recent observations of the French and German physiologists and chemists upon subjects connected with food and its digestive changes, its absorption, and its effects on the metamorphosis of the tissues, nutrition, etc.; and the pathological is an attempt to connect physiological facts with our clinical experience of disease. The way in which this is done is novel; for every chapter in the first, or physiological half of the work, there is a corresponding one in the second or pathological, by which reference is facilitated, and by which the relation of the two parts is rendered clear, while the integrity of each is preserved.

To enter more fully into Dr. Chambers's plan would be to reprint his table of contents, and it is the less necessary to do so here, as we do not doubt that the book will, before long, be in the hands of many of our readers. We will therefore merely indulge them with a dip here and there into the volume, rather to whet their appetite than for any other purpose.

The author divides Food into Complementary and Accessory. The former "fills up the blanks occasioned by wear;"—here is his definition of the latter—*Accessory Foods*:—"It is scarcely necessary to say that by this expression are meant alcohol, flavouring ethers, essential oils, perhaps gelatine, tea, coffee, pepper, tobacco, spices, opium, etc., etc.; which are absolutely in themselves accessory. And there is also intended to be included the great excess above what is either to be found in our typical aliment or required to replace wear, which instinct leads us to consume of some substances absolutely speaking complementary, such, for example, as water and salt.

"These are what man does not want, if the protracting from day to day his residence on earth be the sole object of his feeding. He could live without them, grow without them, think after a fashion without them—a baby does. Would he be wise to try and imitate it?

"The answer to the foregoing question must lie first in an accurate scientific observation of the true physiological effect of these substances on the human frame, and the knowledge thus gained must precede any balance of the advantages accruing from them, with their social and political results.

"The distinction between accessory food and drugs is a line not easy to fix absolutely. It is a purely practical one, grounded on the experience that, while the former are designated by human instinct as good for the body in either health or disease, the latter are only suited for it in the pathological condition. They tend to *disturb* the physiological processes under both circumstances; in the former, it is generally not desirable that they should be disturbed, while, in the latter, such a disturbance is a necessary step to health. So that drugs might be called the accessory food of a pathological state."—P. 194.

Dr. Chambers broaches rather a novel opinion about dilatation of the stomach, in which he is little likely to be borne out by facts:—"I cannot help thinking, that the majority of the cases which are viewed as dilatation of the stomach, are congenital malformations, and not so much the consequences as the causes of disease." That some are congenital no one ever doubted, but is not our author going too far in saying that the *majority* are so?

The reader will be interested in Dr. Chambers's anti-teetotal doctrines. He holds up, as we have seen, alcohol as a food, not necessarily or essentially as a poison. We cannot avoid transcribing a page upon this subject:—"The best line of distinction between the two—the best test for a practical man, whether he is taking in alcohol as a food or pleasant poison—is to be found in its effects during those hours between meals during which digestion is going on. If the body, during this period, is more active, more efficient for the mind's purposes when alcohol is taken than when it is not, we may feel sure that the individual, whether healthy or invalid, is benefited by it. If, on the other hand, the senses are blunter, or the muscular system is weaker, or the guiding powers less steady within four hours after the meal, the probability is, that in all but exceptional cases, the alcohol is either not beneficial at all, or is taken in excess. This reference to the moral relation, to the final purpose of the corporeal frame, is similar to that which was made in the distinction between health and disease in a former chapter, and is certainly more generally applicable than any merely physical test. The same rule is applicable to the normal and abnormal state.

"A question may naturally occur to a cautious man, willing to know the real merits and demerits of accessory foods in his case, whether, allowing immediate good results, an accumulation of postponed evil may be expected to come on in the end? . . . The best answer is, the statement which all physiological and Medical experience will not fail to prove, viz., that *where the digestive powers of the alimentary canal are made stronger, where the muscular system becomes more powerful, at the same time as the whole body increases in weight, no future harm will result.*"—P. 529.

There is a good deal of common sense and sound philosophy in the views taken by Dr. Chambers, and we have been both interested and instructed by the perusal of his volume.

The Sanitary Condition of Paddington. By Graily Hewitt, M.D. London. Pp. 41. London: 1856.

This is a very seasonable contribution to our knowledge of the sanitary condition of the Metropolitan Districts. Dr. Hewitt has given a very lucid description of the important circumstances of sanitary interest observable in the parish of Paddington, such as its geological features, its elevation, sewerage, water-supply, population, and rate of mortality. We are happy to find that the mortality of this district is already below the average, and we hope with the author, that it will be still further reduced as sanitary science is brought to bear by the local Vestry and its officers. The spots in the district where disease and death have chiefly prevailed, are pointed out in connexion with the sanitary condition of the population, and most useful lessons are drawn as to the causation of zymotic maladies. The canal which runs through the parish of Paddington is justly considered as a fertile source of disease; and it appears, practically, that the dwellings situated upon the canal basin have been visited by a very high

rate of mortality. Dr. Hewitt's monograph may serve as a model for other sanitary descriptions of localities throughout the country, and an aggregation of such reports might lead to the deduction of important laws interesting to the whole community.

Consumption: its Causes, Prevention, and Cure. By THOMAS BARTLETT, M.D. Pp. 172. London: 1856.

THOSE who expect to find in this book any elaborate description of the pathology of Phthisis, or any striking novelties with regard to its treatment, will undoubtedly be disappointed; but those who expect a popular and clap-trap treatise on a very serious disease, will be disappointed likewise. The pathology is almost comprised in a single plate, forming the frontispiece, and copied from Carswell's Pathological Anatomy; the stethoscopic signs are despatched with equal brevity; and the symptoms occupy only about two pages. The greater portion of the book is devoted to the consideration of the causes of Consumption, its prevention, and its cure, which, indeed, are the subjects announced in the title-page; and although, as we have just remarked, the observations of the author are not distinguished by any striking novelty or originality, they are nevertheless worthy of a very careful perusal, inasmuch as they are founded upon experience and common sense. It might, perhaps, be asserted that the general precepts laid down by the author are equally well adapted to the prevention and cure of any other disease, but we think that this observation can hardly be fairly urged against a book which contains very sound hygienic principles. The phthisical cachexia may supervene upon any condition of the body which impairs or undermines the constitutional powers; and every attempt to invigorate the system must, so far, tend to ward off the attacks of this disease. The treatment recommended by the author is founded upon general principles, which appear to us to be correct; and the special remedies proposed are chiefly cod-liver oil, judicious choice of climate, horse-exercise, and counter-irritation, especially by mustard poultices and dry cupping.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON POLYPIFORM PROLONGATION OF THE OS UTERI.

By Dr. SZKUKITS.

The subject of this paper is a remarkable case, considered indeed by the author, when taken in all its bearings, as unique. It is an example of polypiform prolongation of the anterior lip of the os uteri becoming developed towards the end of pregnancy, and disappearing spontaneously some time after delivery. Such prolongations are usually congenital, or come on at, or soon after, puberty, and they are rarely confined to one lip. It is not very rare to meet with hypertrophy of the vaginal portion of the uterus, as a consequence of injury done to the cervix in labour, the anterior lip usually being the part that suffers most, and sometimes the only part affected. Still more frequent are cases in which we meet with prolongation during the first days of the puerperal state, induced by inflammatory or œdematous swelling. This is easily distinguished by the œdema of the surrounding parts; but even after the involution of the uterus has become completed, the part does not diminish to its former volume. The few cases of polypiform prolongation of one or both lips, that have hitherto been recorded, have required amputation.

This case occurred in the person of a primipara aged 29, who had menstruated regularly since she was 19. During the latter months of her pregnancy, she had observed something pressing from the genitals, but coition was not impeded; and three weeks prior to delivery, (which took place at the eighth month,) she perceived a tumour projecting from the vagina, which was declared to be a prolapsus uteri. Examined the day after her confinement, a dark-red, smooth, almond-shaped tumour, was found projecting about half-an-inch beyond the external parts, and consisting in a prolongation of the anterior lip of the os uteri, the posterior one being of its normal size. The swelling was painless, and the vagina was in a normal condition. The consistence of the tumour was hard and knotty, resembling swollen glands. The condition of the patient, suffering from high fever with delirium, forbad amputation of the part; and during a severe endometritis that ensued all that was done as regards the tumour was to observe the strictest cleanliness. Nevertheless it gradually diminished in size, so that by June 19, (she having been admitted May 15,) the two lips of the os were equal, no trace of hypertrophy remaining.

Such prolongations of chronic origin, and only removable by surgical operation are not so rare. The author gives a brief account of two cases, and refers to "Virchow's Archiv." for two more.—*Wien Wochensch.* 1855. No. XXXIII.

ON THE TREATMENT OF HÆMOPTYSIS.

By M. ARAN.

M. Aran, agrees with those who entirely condemn the employment of blood-letting in the treatment of hæmoptysis, as it only temporarily arrests the bleeding, while it is dangerous, owing to the debility, and increased susceptibility, to the intercurrent affections it gives rise to. He has, for some time past, been engaged in testing the efficacy of the various hæmostatic agents employed in hæmoptysis; and in this paper he gives the results of his observations. He considers the essence of turpentine a most valuable remedy, given in doses of from 10 to 30 drops every hour, either in a spoonful of water, or mixed up with magnesia as a bolus. Marked amendment usually occurs in a few hours, and in from twenty-four to thirty-six hours the bleeding ceases. It is less suitable for young or plethoric subjects with febrile action, than in weak cachectic individuals, exhibiting atonic characteristics. Ergot of rye and ergotine are far less efficacious; but chloride of sodium, given in doses of 1 to 2½ drachms, proves very efficacious in some cases, and has the advantage of being always at hand. Among the astringents, tannin, and especially gallic acid, are to be recommended; the latter, while quite as efficacious, does not exert the same desiccating effect upon the tissues, or induce the obstinate constipation produced by tannin. As a mean dose, M. Aran gives 15 centigrammes (a centigramme is $\frac{1}{7}$ grain) every hour or alternate hour. He has had little experience in the use of emetic and nauseating remedies; but in three cases in which veratrine was employed, the bleeding ceased as if by enchantment. This class of remedies, indeed, would deserve to stand in the first class of hæmostatic agents, were there not others possessing like efficacy, and yet not giving rise to the painful nausea these produce. M. Aran has derived great advantage from the combined use of digitalis and nitre. In ordinary cases, he gives in the twenty-four hours, 30 centigrammes of digitalis, and 1½ gramme (a gramme is 15 grains) of nitre, divided into four doses; but in very severe cases, these doses may be very much increased, so that the digitalis has been given to the extent of 1½ gramme, and the nitre to 4 grammes, without injuriously affecting the action of the heart, while the effect produced on the hæmorrhage has been remarkable. Its arrest, never however, takes place so suddenly under the use of these medicines, as when turpentine or gallic acid is employed.

In abundant, but not immediately dangerous hæmorrhage we can choose among any of the above-mentioned means. In extremely abundant hæmorrhage, we must arrest the flow as speedily as possible, by agents which do not depress the powers of the economy too much, and which are not too slow in their operation. Neither ergot, acetate of lead, nor alum is sufficient to meet the danger. Turpentine, gallic acid, chloride of sodium, or nitre with digitalis, can alone be trusted; but the necessity of increasing the dose with the intensity of the hæmorrhage may, perhaps, render the chloride of sodium, and especially the nitre and digitalis, dangerous, through the possibility of the production of a too great depression of the heart's action. It is, therefore, to gallic acid or turpentine that we must chiefly trust in these severe cases; and we must not limit ourselves to their employment, but also endeavour to procure a temporary arrest of the hæmorrhage by ligatures to the limbs and the application of ice to the chest, allowing the means employed internally to consolidate this temporary cure.

Gaz. Hôp. 1855. No. CXIV.

THE ERYSIPELAS OF INFANTS.

By M. HERVIEUX.

The following are the conclusions of a memoir upon this

subject recently read by M. Hervieux at the Société Médicale des Hôpitaux :—1. It is principally observed within the first six weeks. 2. Among the predisposing causes must be mentioned nosocomial influence, epidemic puerperal fever, induration of the cellular tissue, enteritis, changes in the Peyerian glands, gastro-intestinal ramollissement, bronchitis, and eruptive fevers which have reached their last stage. 3. The most common determining causes are umbilical suppuration, ulcerative erythema, suppurative inflammation of vaccine pustules, cupping, leeching, or blistering, and the too early application of earrings. 4. It seems to be connected with certain affections not only by relations of causality, but also sometimes by those of contiguity. Thus, peritonitis seems to give rise to erysipelas of the abdomen, pleuritis to that of the chest, and ulcerative stomatitis to that of the face. 5. The local phenomena are the same as in the adult, except when it is grafted on sclerema, when the tumefaction presents unusual hardness, and the temperature is lower than normal. 6. The general phenomena are proportioned to its intensity, and especially to its extension. They consist in fever, gradually increasing agitation, sleeplessness, extreme prostration. There is great decoloration of the face, but vomiting or convulsions are rarely present. 7. There is no fever in erysipelas that follows selerema. 8. Locally, the erysipelas may assume three forms :—the simple, or erythematous, the œdematous, and the bullar. 9. Any part of the body may be occupied by the erysipelas, and the following is the order of frequency :—face, lower part of the trunk and lower limbs, upper limbs, upper part of the trunk, scalp, neck. 10. Sometimes fixed, it is in the majority of cases erratic, this being the form also accompanied by the most intense reaction. 11. Its duration varies from three to eight days. 12. It usually terminates by desquamation, but sometimes by ulceration or gangrene. 13. It is one of the most dangerous diseases of infancy, and the more so the nearer to the period of birth it occurs at. It is less serious when primary than when secondary, when limited than when generalized. 14. The visceral lesions observed are only those found in the diseases which this exanthem complicates. 15. The frightful mortality that takes place in spite of all means employed, calls for great reserve with respect to therapeutical agents.

L'Union Méd. 1855. No. CV.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, January 19, 1856.

The meeting of the Medico-Chirurgical Society was held on the 16th instant. From the great anxiety to hear the first paper on the list, the large room was crowded, and an unusual number of the magnates of the Profession were present. Those of your readers who took an interest in the Darlington poisoning case, will remember that the Medical men in attendance consulted Dr. Christison on the subject, and that the Professor freely gave them his advice, though on the understanding that he was not to be mixed up with the judicial proceedings, he, having for some years declined all active duty of this description even in Scotland. Accordingly, when the billets of the Society announced a paper by him, entitled, "Observations on the Trial of Mr. Wooler for Poisoning," there was a natural desire manifested to hear the opinion of so profound a Medical Jurist on this most puzzling case. Nor were the audience disappointed. The paper, which was singularly able and lucid, was yet remarkable for its extreme caution, and, while it plainly inferred, without in the least committing its author, who was, in his opinion, the poisoner, it yet vindicated the verdict of the jury as the only one reconcilable with the evidence submitted to them.

Dr. Christison administered a well-merited castigation to Mr. Serjeant Wilkins, for the manner in which he commented on the Medical evidence, and insulted the Medical witnesses; he also somewhat strongly condemned the reporters for the public press, who printed in full every bit of the counsel against the witnesses, but never did justice to the replies of the latter.

By far the most interesting part of the paper, however, was that in which he discussed how Medical men should act when suspecting poison, or placed in the circumstances of the attendants of Mrs. Wooler.

His opinion was, that having satisfied themselves that poison was being administered, they should communicate their suspicions to the party who was being poisoned.

Professor Miller defended the reporters of the press.

Dr. Andrew Wood, in a highly-eloquent speech, supported the views of Dr. Christison.

Dr. William Gairdner thought the attendants of Mrs. Wooler should have placed a trustworthy person beside her.

Here, after repeated efforts to get up a discussion, the attempt proved abortive, and the Society proceeded to hear the next paper on the billet, entitled "On Deformities of the Pelvis, from Rachitis and Malacosteon."

Dr. Matthews Duncan, the author, gave an elaborate paper, illustrated by mathematical diagrams, explaining the different mechanism concurring in the production of these deformities. The apperwl was elreceived.

GENERAL CORRESPONDENCE.

APOPLEXY, PARALYSIS, SOFTENING OF THE BRAIN—A PLEA FOR NON-PERFORMANCE OF PROMISE OF MARRIAGE.

[To the Editor of the Medical Times and Gazette.]

The Dublin newspapers of December 15th, kindly forwarded to me by Mr. Wilde, report a trial for breach of promise of marriage, presenting features of much interest in a Medico-legal point of view.

The morbid conditions alleged in defence have been generally recorded in Medico-legal works, so far as I have been able to discover, as a cause of impotence, and have not been brought forward in a court of justice as the ground of defence in an action similar to the present. I have, therefore, thought that the present case might be acceptable to your readers.

Hurford *v.* Singleton.

This action was defended on the ground that at the time defendant had promised marriage he was advanced in life, viz., 60 years of age; and that before a reasonable time had elapsed from the request to marry, namely, in May, 1855, he was, by a visitation of God, attacked by a fit of apoplexy, since which time he was in an infirm state, and afflicted with softening of the brain, in consequence of which he could not perform his promise without putting his life into great peril, and hastening his death.

Evidence was called on the part of the plaintiff to prove the engagement, and to show that no apparent impairment of health or vigour remained after recovery from the attack.

It was stated by the defendant's counsel, Mr. Ball, that, in 1849, he had suffered from dropsy and disease of the kidneys; that, in 1852, he had an attack of apoplexy and congestion of the brain. During the interval from that time until May last he had promised to marry the plaintiff; but that in the latter month he was afflicted with another attack of apoplexy, and was now suffering from paralysis and softening of the brain.

The Medical evidence in support of the defence, was as follows :—

Dr. Speedy had attended the defendant, with Mr. Cusack, in 1849, when suffering under dropsy, and again in 1855, when he had the attack of apoplexy. Dr. Speedy stated that he is now liable to another attack, and is paralytic;—further, that an attack of apoplexy would endanger his life. Upon being asked whether marriage would put the life of defendant in peril, Dr. Speedy replied, that the circumstances under which another attack might be produced would depend upon his physical powers. The witness would not give it as his opinion that he might not consummate the marriage without periling his life; he had known many instances of delicate persons marrying, and getting stronger and better afterwards.

Mr. Wilde had known defendant fourteen or fifteen years; he had seen him in June last, when he found him labouring under paralysis; the defendant had a similar attack in 1852; also a serious varicose ulcer on his leg from 1851 to 1854, off and on; he is now partially paralyzed in the leg and arm, and suffering from loss of memory. Mr. Wilde had doubts whether he could consummate matrimony. As one of the Census Commissioners, Mr. Wilde knew that defendant was not competent to fulfil the duties of the appointment he held

in the Census Office. On cross-examination, Mr. Wilde stated that he had known men get married after apoplexy; he had not known an instance of a person with an arm or a leg paralyzed getting married. He agreed with Dr. Speedy's opinion.

Mr. Cusack had attended defendant in 1852 for an apoplectic attack; also in May last, when he had an apoplectic attack, and was becoming paralytic. Mr. Cusack believed that any excitement would increase the tendency to another attack, and would tend to hasten his death.

The jury returned a verdict for the plaintiff, £300 damages, and costs.

The ground of this verdict, it is said, was that the jury considered that an unreasonable time had elapsed between the date of the promise of marriage and the date of the last attack of apoplexy.

"The sexual function," observes Dr. Taylor, "is so intimately allied to bodily vigour and nervous energy, that the integrity of the one may be pronounced to be essential to the other" ("Medical Jurisprudence," 5th edit. page 625). Relatively to the case before us, we may add, that the one will surely react upon the other. It is well known that, not only does excessive sexual indulgence induce paralysis, but that even moderate, and only occasional, sexual intercourse has been followed by fatal consequences, in persons of delicate health. The occurrence of hæmorrhage from internal organs, the lungs, brain, etc., has frequently followed upon copulation; still more probable was it, that it should take place in a brain damaged by softening—a pathological condition of the brain very commonly ending in either apoplexy or paralysis.

The defence, therefore, set up in this case was a valid defence. The general evidence did not show other than a disposition to perform the promise of marriage previously to the attack, although the jury, it appears, thought the period that had elapsed was unreasonably long. However this may be, there can be little room to doubt that the opinions expressed by Dr. Speedy, Mr. Wilde, and Mr. Cusack were strictly correct, and established the defence so far as the plea rested upon the state of the defendant's health. That such heavy damages should have been awarded on account of the lapse of time is matter of considerable surprise.

I am, etc. W. B. Kesteven.

Manor-road, Upper Holloway, January, 1856.

MEDICAL QUALIFICATIONS.

[To the Editor of the Medical Times and Gazette.]

Sir,—If a Medical man commits an offence against the laws of his country, straightway the journals and the Profession bristle up, and, as if the whole Profession of Medicine were impugned, begin to search the "Medical Directory," and gloat on the probability that the accused individual is not a "qualified" Medical man.

This is dreadfully snobbish. It is not because Mr. Palmer is a Medical man, qualified or unqualified, that he murdered Mr. Cook (if he did murder him); but rather because he is a betting—a sporting character. Now, the "sporting world" does not bristle up about the charge; and see the difference between the two bodies! Having accepted the issue of Palmer's being qualified or not, as if the fact of his being qualified was to condemn the Profession in general, we are bound to abide by that issue. He is qualified; and, therefore, we are all murderers, I suppose!

But, "No;" says one of the Medical journals. "Palmer may be 'qualified,' but he is not practising." Hurrah! We are, therefore, safe from the charge of murder. This is hardly fair. We had better have remained quiet, like *Bell's Life*, and no one would have thought of accusing the whole Medical Profession, any more than it is thought necessary to accuse the whole sporting world.

There is a vast deal too much fuss made among us about qualifications. It is very snobbish! A "qualified" Medical man may be a great rogue—and a great fool as well.

I am, etc. R. U. West.

Alford, Lincolnshire, Jan. 20, 1856.

TREATMENT OF ANEURISM BY COMPRESSION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Although I have, through the course of my Professional life, uniformly recommended and employed deligation of the artery for the cure of external aneurism, and have carried out this practice, so far as to have secured the arteria innominata itself, in a case of aneurism of the subclavian artery, I have nevertheless had many misgivings in my mind respecting the operation, from repeated failures and fatal issues, and have been long prepared to give an unprejudiced consideration to any new proposal of treatment for such surgical cases which held out an ultimate prospect of success.

I was accordingly much gratified in receiving from Mr. Square, Surgeon to the South Devon and East Cornwall Hospital, the notes of a case treated and cured by him, by means of gentle and interrupted compression. At my suggestion, he sent the history of the case for publication in your widely-circulated Journal, in which I perceive it has appeared on the 29th ult. The case cannot fail to arrest the attention of the Profession; and I trust that the particular mode of the application of the compression introduced by Mr. Square, will be subjected to a fair and impartial trial, and that faithful accounts of the experiments may be recorded in your pages. It is only in this way that real improvements can be promoted and extended, and the dogged attachment to the use of the knife in aneurism, which has continued since the days of John Hunter to the present time, with a pertinacity not to be defended, must give way to safer and milder remedial treatment.

Under the old mode of employing compression, the pressure, by means of heavy weights on the tourniquet, was kept up uninterruptedly, often for many days and nights—the unhappy patient suffering all the while intolerable pain. But by the gentle and uncontinuous compression for any lengthened period, as practised by Mr. Square and Mr. Teale (the latter of whom published a case in your scientific Journal for October 28, 1854, which was treated in a similar way, during the same month), a cure was effected by Mr. Teale, with comparatively little suffering, and more expeditiously than when the artery is subjected to deligation.

Mr. Teale's patient was cured in twelve days—Mr. Square's in twenty-eight days. In Mr. Square's case, the tourniquet was kept on, the first day, only three hours; the second day, between two and three hours; the twentieth day, less than two hours; the compression was made several times during the day, and never during the night. In Mr. Teale's case, the compression was continued nearly all the day—never during the night. The compression was intermitted occasionally for short periods during the day, and was practised to such a degree, as greatly to mitigate the force of the circulation, but not absolutely to arrest pulsation in the aneurism.

Mr. Square observes: "It is evident that there is much to learn, before we can say with certainty what is the best mode of applying pressure." Both he and Mr. Teale have been successful with Signorini's tourniquet; and this seems to me to be as good as Skey's, or Carte's, or Hoey's, or any other instrument. The leaden weights appear to be unsuitable.

The question of the greatest importance involved in this operation is, In what way does interrupted gentle compression effect a cure? Apparently, in my opinion, it does so, by simply impairing the volume and impetus of the circulation of the blood, and thus favouring its coagulation. A ligature thrown round the superficial femoral artery, by compelling the blood to flow by its inosculating branches, acts in the same way, by lessening the force of the circulation. In the majority of cases, where the femoral artery undergoes deligation, the circulation or pulsation of the aneurismal sac does not at once stop, but it becomes fainter and fainter—the tumour gradually decreasing, until it becomes more and more solid.

The same principle affords an explanation how the fibrinous walls of the aneurismal sac can be affected by compression, and undergo changes, such as are well known to occur, when a spontaneous cure of an aneurism takes place by the pressure of a tumour or gland on the artery.

From the researches of Tufnell, Crisp, Phillips, and Norris of Philadelphia, success has attended compression oftener than the deligation of the artery. It should never be forgotten, that when compression fails, recourse can be had to the ligature. At all events, the researches and statistics of these authors affirm the conclusion, that compression is as

certain and effectual a cure in external aneurism as that by the ligature; and, what is still more satisfactory, free from all the dangers of the latter. I am, etc.

John Lizars,
Late Professor of Surgery to the Royal College of Surgeons, and Senior Operating Surgeon to the Royal Infirmary of Edinburgh.

Edinburgh, 15, South Charlotte-street,
January 4, 1856.

ACTION OF STRYCHNIA ON THE ANIMAL ECONOMY.

[To the Editor of the Medical Times and Gazette.]

Sir,—Aware that your space is valuable, I shall be very brief on this occasion. The object I have in view in thus addressing you, is to say a word or two in reference to the action of strychnia upon the animal economy. I do not propose to speak of its action as a medicine—my experience of it in this way is far from extensive; indeed, I may say, it has never been a favourite medicine with me—but as regards its action upon the animal economy, I can, from observation, say a word or two. Some time ago I was induced to try how it would act upon a kitten, a stout little animal; the quantity I employed was small, less than half-a-grain, which I rubbed over its gums. The action of it upon the animal was very gradual, affecting first the head, producing a sort of tottering walk, followed with slight tetanic indications, which went on increasing in severity, till they became very violent, causing in all the extremities the utmost extension, with extreme rigidity. In connexion with the case, what surprised me much was the condition in which, an hour after, I found the old cat, the mother of the kitten. There it lay dead with its limbs fully extended, and in the most rigid condition. My efforts to bend its limbs or replace them in their usual state were of no avail; very rigid they were, and very rigid they remained. It had licked the mouth of the kitten, and, in consequence of doing so, speedily became affected in the way I have thus briefly described. On the following day I again tried to unbend and alter the position of the extremities, but with no more success than on the former trial to do so. Observations of the kind to which I have referred, I consider of great value in a Medico-legal point of view, as indicative of phenomena that I believe are peculiar to the action of strychnia. I speak not now of detection, but merely of the effects or manifestations that arise from the exhibition of this poison. As the dose of it may be large or small, so will its effects become more or less apparent and violent, and ultimately produce fatal results.

I am, etc. John Cochrane, M.D.

Edinburgh, January 19, 1856.

ORGANIZATION OF POOR-LAW MEDICAL OFFICERS.

To the Editor of the Medical Times and Gazette.]

Sir,—Many of your readers can remember that, on September 5, 1844, I called the attention of the members of the Medical Profession in Cumberland to the iniquitous Medical Reform Bill, which Sir James Graham (the then Secretary of State) had just previously introduced into Parliament; and requested them to call meetings in every town throughout the country for the purpose of discussing, and getting-up, petitions against the measure. And what think you was the result of that appeal? The immediate rejection of his Bill. But Medical men must never forget the manly, bold, and strenuous exertions which the Editors of the *Medical Times* and the *Lancet* made in defence of their Professional rights and interests on that occasion. I now beg leave to direct attention to Mr. Griffin's letters, published in the *Medical Times and Gazette*, especially that one on December 8, 1855, in which he says:—"As a body we are shamefully underpaid, and not treated with that consideration which is due to men of our education." But is this all? Have we not, as a body, already experienced and undergone the most flagrant injustice and abuse, and have all along passively submitted to self-abasement, degradation, and insult at the hands of the Poor-Law Board and the local Boards of Guardians? Do you not think it is high time that we were laying aside that apathy and indifference which have hitherto prevented us from attending to our Professional interests, and from extricating ourselves out of the thraldom and tyranny of the Poor-law Board?

In conclusion, therefore, I most earnestly and sincerely entreat you all to act upon the advice contained in Mr. Griffin's letters. We must, one and all, immediately call meetings in every town of the kingdom, for the purpose of discussing the points bearing upon our present grievances, and of adopting some useful and profitable measure of reformation and improvement in this department of our Profession: and I entertain not the slightest doubt but that our steady, combined, and united efforts will ultimately be crowned with success. I am, etc.

E. Wilkinson, L.R.C.S.E., L.S.A.

Aspatria, January 19, 1856.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Saturday, January 19, 1856.

Dr. Snow, President, in the Chair.

Dr. Crisp complained to the Society of the conduct of the Editor of the *Medical Times* in declining to insert a rectification of a report of an observation, etc., made by him some weeks since, and stating that he charged the reporter with a wilful misrepresentation. Dr. Crisp denied that he had ever made such a charge, and expressed his intention of bringing the matter before the Council.

Dr. Winn mentioned a case of fatal convulsion in an infant, aged 6 months. The infant, which was well developed and robust, having been nourished entirely upon mother's milk, was suddenly seized with coma and convulsions. It had not cut any teeth, and Mr. Kesteven, who saw the case with him, lanced the lower gums, which he found distended. The usual remedies for what appeared to be congestion of the brain were adopted, and the disease seemed for a time to be arrested, but it returned with redoubled violence, the conjunctiva became greatly suffused, and after a long-continued succession of convulsions of an epileptiform character, the child gradually sank, and died three days after the attack. On a post-mortem examination the brain was found to be perfectly healthy, there being no signs of congestion present. That mere cerebral irritation from teething (for he could not attribute the disease to any other cause) should be capable of producing such long-continued and destructive effects was a pathological fact of great practical interest. In the absence of any signs of congestive disease after death, he (Dr. Winn) thought it reasonable to infer that the affection was not of an hyperæmial character, though it was barely possible that congestion of an evanescent kind might have been present during life, and yet have left no traces after death.

Mr. Bishop exhibited a new conical ear trumpet, which he said, he had had constructed on the principles laid down by Lambert, which were based on certain ascertained relations between the cone and the sphere. The instrument, he said, increased the power of hearing as ten to one, so that a person who could hear without it at a given distance, could hear with it at ten times that distance.

Mr. Henry Smith mentioned the particulars of a case where death resulted in eight days after an operation upon hæmorrhoids. The patient was a man about 50, who was not in good health, having just previously suffered from a chronic abscess. On examination, Mr. Smith found a slight protrusion of the mucous membrane of the rectum, and one large hæmorrhoid, hard, not vascular, and with a narrow base. As the man suffered great agony, an attempt was made to return the protruded parts. The patient was kept in bed, and fomentations and lotions were used. At the next visit, however, the parts were again protruded, and the man was in as much pain as before. Mr. Smith, therefore, passed a needle, armed with a ligature, through the base, and having tied it previously, cut off the tumour with a pair of scissors. Having examined the tumour, and finding that it consisted chiefly of indurated cellular tissue, with one vein of some size running through the centre, Mr. Smith, not fearing any bleeding, removed the ligature. The patient was kept quiet in bed. Two days afterwards he made no complaint, and the part

operated on was doing well. On the fifth day, however, Mr. Smith was sent for to him, and found him suffering from low febrile symptoms, and, what he considered of serious import, viz., swelling of the left elbow-joint. Stimulants were ordered, but the patient got worse. Patches of erysipelas appeared about the face and extremities, attended with great swelling in the latter, and the patient died on the morning of the ninth day from the operation. Unfortunately, there was not any post-mortem examination, and therefore this case was therefore deprived of much of its value; but he thought it was his duty to mention the particulars to the Society, as, during a late discussion on the propriety of treating Hæmorrhoids, it had been stated by Mr. Coulson that he had not seen any serious symptoms produced by ligaturing piles, whereas it is well known that death has occurred after this operation in some cases. The late Mr. Charles Buller died after this operation. Mr. Henry Lee had mentioned two fatal cases. In the case mentioned just now, death may or may not have been produced directly from the operation. Mr. Smith could not feel certain about it. The circumstances, however, of the man dying so soon afterwards, and with low inflammatory symptoms, was very suspicious, and, at any rate, the odium was cast upon him by the relatives and friends of the deceased of having caused his death. The case shows the propriety of resorting to the use of nitric acid, when practicable, as a much less dangerous remedy than tying and cutting. He generally used it, but it was only adapted for very vascular piles, and would not have been suitable for the case under notice.

In answer to Dr. Richardson, Mr. Smith said the patient was 55 years of age, not in strong health, and that he had had a short time previously an abscess in the neck.

Mr. Dendy was sorry there had been no post-mortem examination. He thought it possible that phlebitis would have been found extending from the vein in the pile, and producing some deleterious influence. Any great excitement or fatigue might have developed the erysipelatous diathesis of the patient, as the operation had done. He had always had the greatest horror of extirpating piles by the operation of the knife. He had entirely cured a case of extreme prolapsus by the very free use of nitrate of silver, with which he perfectly saturated the bowel.

Dr. Richardson said, he was lately consulted by a gentleman suffering from piles, and he discountenanced the idea of an operation. Sir B. Brodie was afterwards consulted, and he declined to operate. Subsequently, another Surgeon undertook the operation, and was successful, but the patient's life was despaired of for several weeks. The result of Mr. Smith's case reassured him, (Dr. Richardson,) that he was on the safe side in suggesting that no operation should be performed.

Dr. Crisp said, it was very questionable whether such operations were justifiable, and thought there could be little doubt that the patient died from phlebitis.

Mr. Robarts exhibited some uterine tumours, (showing the various stages of their development,) taken from a woman aged 56, who died of apoplexy, and with whose general health, he said, the tumour did not seem to have interfered.

A Paper was then read

ON THE TREATMENT OF UTERINE DEVIATIONS.

By Dr. TILT.

Dr. Tilt has been led to believe that, in general, uterine deviations were unattended by symptoms, and were, therefore, only accidentally detected; and that the cases of uterine deviations Practitioners are called upon to treat are all complex problems, problems embracing various elements, each one of which has more particularly struck various Medical men, and guided their practice. The result has been, that one of the indications of such cases being often alone attended to, partial relief has alone been effected. The radical cure, he says, will be more frequent when all the bearings of the case are taken into consideration. Dr. Tilt also remarked, that women who have suffered much from uterine deviations are likewise affected with inflammatory congestions, erosions or ulcerations of the neck of the womb. The pathologist then infers that the pains experienced, depend upon those inflammatory lesions, at all events, the indication is clear,—to heal all ulcerations by the Surgical modes of treatment on which Dr. Tilt has dwelt in his work on "Diseases of Women," and to subdue inflammation; for, by so doing, the uterine deformity will in some cases be entirely removed, though, in others, the patient's sufferings will be only diminished. It is also equally true that in other patients the inflammatory affection of the neck of the womb may be cured, and yet they may still continue to suffer. Dr. Tilt further observed, that uterine deviations are often complicated by neuralgia; the indication then is to treat such cases by the means found useful in neuralgic affections. Thus he has removed, or much alleviated, the sufferings of many affected with uterine deviations by the use of sedative injections into the bowels. Dr. Tilt was, moreover, satisfied that much may be done to relieve the neuralgic symptoms of deviation by hydropathic treatment, and observed, that uterine deviations were complicated, and often determined by excessive relaxation of the vagina; detailing a somewhat novel plan of restoring to the vagina the tone which in health enabled it to serve the womb as a column of support. He further observed, that uterine deviations were generally most painful in married women in whom the abdominal walls had been greatly distended by gestation, and it rightly occurred to observers that if they could artificially restore to the abdominal walls the tone they had lost by being once distended, the patient's sufferings would be appeased. Dr. Tilt also spoke, in words of commendation, of Mme. Caplin's and M. Nourgeaud's elastic abdominal bandages. Dr. Tilt further stated, that when the vagina is irremediably dilated, that not being able to contract it by astringents, it was judicious to fill up the distended portion of the vagina, in order to fix the womb and relieve the patient's sufferings, and for this he recommended the india-rubber air pessary now generally employed in Paris, in preference to Dr. Simpson's stemmed pessary to which he objected, as the risk was too great. The 14 deaths which are known to have occurred in Paris, America, England, and even Scotland, from the imprudent use of the intra-uterine pessary, ought, Dr. Tilt says, to deter Practitioners from its use, when we consider that the victims were in the prime of life, and that it was in nowise compromised by the uterine deviations. Some of those cases were most worthily reported by the operators themselves; some, however, were only accidentally brought to light; so it may be fairly supposed that all the fatal cases that have occurred are not known. In the most prudent hands the stemmed pessary has, in some cases, perforated the womb; in others, it has produced flooding to a dangerous extent, or agonizing colics, or metritis, or peri-uterine inflammation, or ovaritis and inflammation of the hard ligaments, or peritonitis, or metro-peritonitis. But the patients were saved! True. Taught the dangers of active treatment they seek Surgical interference as little as possible; but will not the life of many of them be curtailed by the sequela of peritonitis and other pelvic inflammations? Having thus critically commented on the various modes of treating uterine deviations, Dr. Tilt concluded by the following practical remarks:—

1. Treat all ulcerations, and remove all inflammatory affections of the womb, and seek to restore its lost tone to the vagina, by the systematic use of astringents, for by so doing the deviation may be corrected, and the nervous sufferings abated; but, if the vagina be much dilated, support and steady the womb by an air pessary, for it is also true that, in some cases, the inflammatory swelling of the womb disappears when it is steadied by a pessary.

2. Remove all hard swelling of the womb by cold-water douches, vaginal and rectal, and also by a judicious internal exhibition of mercury and iodine.

3. Attack the neuralgia, as such, by narcotic rectal injections, and by hydropathic measures.

4. Apply pressure to the wound, outwardly, by hypogastric bandages; internally, by well-adapted air pessaries.

5. With regard to the prevention of uterine displacements, the first thought is, to advise a patient not to exert herself too soon after parturition; the next is, to bear in mind the great frequency of inflammation in the pelvic tissues, and its agency in producing uterine deviations, so as especially to direct our antiphlogistic treatment to the inguinal regions when they are painful, and when swelling or fulness can be detected there, after painful menstruation, miscarriage, or parturition.

Dr. Barnes said, he had successfully used the plan mentioned by the author, of introducing a quantity of powdered alum upon cotton wool, repeating the application daily for some time. Solid pessaries, especially globe pessaries, were, he thought, barbarous contrivances, generally doing much more harm than good. He should not treat deviations in the way recommended by the author. They were generally connected

with some other disorders, and when these were cured, the deviation was rectified. When deviation occurred alone, it was rarely attended with painful symptoms.

Dr. Winn mentioned a case of melancholia that he cured by simply withdrawing a pessary which had been injudiciously introduced, and which, on being removed, was found to be covered with fetid incrustations.

Mr. Robarts recommended a pessary formed of silver wire, invented by Mr. McGinnis.

Dr. Barnes said, he was once applied to by a woman, who was suffering from intense pain, with symptoms pointing to irritation of the pelvis; and on inquiry, he found that an enormous pessary, as large as an ordinary cricket-ball, had been introduced. He extracted this with great difficulty, by means of a polypus forceps, and the patient recovered.

The President thought the most convenient pessaries were those consisting of small hollow balls of vulcanized india-rubber, which could be removed in a collapsed state.

Dr. Rogers said, he had given up the use of pessaries on account of the irritation which they caused; trusting more to a plentiful application of cold water or alum-water.

Mr. Hird protested against the employment of wood pessaries, and recommended the use of nitric acid in cases of prolapsus in old persons, where the vagina was very much relaxed. In cases of long standing, he had never seen any benefit from cold water or solution of alum.

The Society then adjourned.

We are requested to insert the following regulations with reference to the next meeting of the Society :—

I.—That on the last Saturday in January, between the hours of 8 and 8·30 p.m. the Fellows of the Society shall elect by ballot seven members of the Council, to constitute a Committee to prepare a list of those Fellows of the Society, who, in their opinion, are most eligible to fill the several Offices to be declared vacant at the next General Election of Officers.

II.—That this Committee shall, in weighing the claims of the Fellows proposed for office, take special cognizance of—

1st. Seniority.

2nd. Services rendered to the Society.

3rd. Number and quality of the papers read to the Society.

4th. Position or standing in the Profession.

III.—That this Committee shall submit to the Council at its Meeting, to be holden on the first Friday in February in each year, a list containing double the number of names of Fellows for each Office to be declared vacant, viz.: 2 Presidents, 4 Vice-Presidents, 20 Councillors, etc.; and this duplicate list having been read by the Council at its usual Meeting in February, shall be forthwith printed and circulated among the Fellows, at least ten days before the date of election, together with the other papers usually sent, and having relation to the business of the Anniversary Meeting.

IV.—That the Balloting list shall consist of three columns, in the first of which, the names of the Officers and Council for the past year shall be inserted; in the second, the names of the Fellows recommended by the Council; and the third shall be left blank for the names of any gentlemen whom the Fellows may consider possess superior claims to those proposed by the Council.

V.—That no name shall be admitted by the Scrutators unless the surname shall have been written in ink and in full.

VI.—That any balloting list containing a greater number of names for any office than there are vacancies to be filled up in that office, shall be rejected by the Scrutators, so far as relates to such Office.

EPIDEMIOLOGICAL SOCIETY.

Monday, January 7, 1856.

Mr. Tucker read a paper

ON THE PROPHYLAXIS OF CHOLERA BY SOME OF THE VEGETABLE AND MINERAL ACIDS.

The author, having alluded to the former paper read by him before the Society, in July, 1854, on the use of vegetable and mineral acids as prophylactic of diarrhœa, choleraic diarrhœa, cholera, and dysentery, stated, that he purposed on the present occasion to treat more especially on the vegetable acids as preventive of diarrhœa, choleraic diarrhœa, and cholera, and chiefly on the product of the apple, cider, and cider-vinegar, or cider when its first and second stages of fermentation were perfected; and that his object was to show that the former, and probably the latter, of these possessed prophylactic properties as regarded the diseases named. Mr. Tucker then alluded to certain facts and observations bearing on the subject which had been already published by accredited authors since the reading of his first paper in July, 1854. To Dr. Aikin's work on Cholera, who stated "that certain acids exercised prophylactic powers as regarded cholera." To Dr. Headland's second edition of his work "On the Action of Medicines in the System," who states, at page 222, "It is possible that Asiatic cholera may be connected with a rapid and fatal degeneration of the blood, produced by some septic influence, and there seems to be much reason for supposing that those who are accustomed to the use of the vegetable acids as articles of diet, as in the cider districts of England, are rendered thereby less liable to the attack of this disease. The author quoted from a letter from Mr. Hingeston, of Brighton, published in the *Association Journal*, for June 29, 1855, who wrote "On the Probable Recurrence of Cholera," in the summer of that year. "Indigestion (says Mr. Hingeston) with heat at the præcordium is again complained of. It appears to me there is a want of acid in the blood, and that this form of dyspepsia is relievable by the vegetable acids, such as lemon juice." Mr. Tucker stated, that in the pursuit of his object he had occasion to search for the opinions of authors who had written on the plague, a disease which Dr. Southwood Smith (in his Board of Health Reports) maintained, with that of yellow fever, was allied to cholera. Lemon juice, vinegar, spirit or oil of vitriol were among those he (Mr. Tucker) found which were adopted by good authorities, both as preventive and remedial of plague, and stated that it had been remarked that when diarrhœa ensued in patients attacked by plague, death was almost certain, whereas costiveness was a favourable sign. After a few remarks on the juice of the lemon as a well-known antiscorbutic, and observing that its value as a protective of cholera had yet to be shown, as well as some other of the vegetable acids, the author quoted from Bernay's Household Chemistry as to the property of the apple as an article of diet, and another authority, at some length, which showed that the apple possessed as well medicinal properties, such as being a refrigerant, tonic, antiseptic, and antiscorbutic. The use made of apples as an article of food by the operatives of Cornwall, especially in 1801, a year of scarcity of articles of consumption, and by the French and Germans to the present day, was mentioned, and the author expressed an opinion that the apple was nearly as nourishing as bread, and more so than the potato. Mr. Tucker then confined his remarks to cider as a preventive of cholera, and quoted from a work by Dr. Brockelsby, entitled "Economical and Medical Observations," in two parts, from the year 1758 to the year 1763 inclusive, the following passage :—"The most experienced and judicious Physician of the age, Dr. Huxham, has, with a rate of benevolence only peculiar to great minds, disinterestedly laboured to persuade the Lords Commissioners of the Admiralty in Great Britain, that the use of good cider ought to be admitted in general throughout His Majesty's Navy, as a provision exceedingly conducive to the preservation of the health of the seamen, especially in long voyages." Dr. Brockelsby's testimony in favour of cider was also quoted by the author. Mr. Tucker then read some letters and other documents from Medical gentlemen residing in Somersetshire, Devonshire, and Hereford, and from others who had resided in Devonshire, but who are now living in and near London. These correspondents bore testimony as to the value of good fermented cider in a medicinal and dietetic point of view. It was stated that those who drank cider were free from attacks of cholera and severe diarrhœa, while the disease was raging around them, and that those who drank malt liquor were oftentimes attacked. The author then proved by quotations from the correspondents of the Provincial Association, that the cider districts had been remarkably exempt from the inroads of cholera; and also that in two cases occurring at Exeter in 1832, where the patients were in a state of collapse from cholera, they were completely restored by being allowed to drink several quarts of cider. Mr. Hancock, of Wedmore, Somersetshire, had forwarded

to Mr. Tucker two separate communications: the first was to the effect that he had attended in 1832, 53 cases of severe diarrhœa and cholera; that he was called to the majority of cholera cases, among the poor at Wedmore at that period, and that he did not remember a single instance of the fatal epidemic having occurred in the better classes of society, otherwise those who were in the habit of and had the means of procuring the beverage common to the locality—cider. The patients attended by Mr. Hancock, as stated by him, were chiefly females, who had not the means, directly or indirectly, of procuring cider. Mr. Hancock's second communication to the author, which he said arose out of a conversation which took place on the occasion of his visit at Wedmore in August last, to the effect that four persons had died of cholera who were in the habit of drinking cider, were as follows:—"I have at length made inquiries relative to the cases of cholera reported as having occurred at Godney by Mr. W., and, strange to say, the facts bear you out in your doctrine to the very letter. There were five persons attacked within a circuit of three hundred yards:—a father and son, who had been teetotallers for the last twenty years of their existence, and men who strictly carried out the doctrine of total abstinence from fermented liquors. Both fell victims to the plague in a few hours. Another man of the same faith, also fatal. The fourth case was that of a confirmed drunkard, a "cider-swiller," and while in intense agonies from spasm, constantly calling out for cider. At last it was given to him. This man recovered, and is now living. The particular case brought forward by Mr. W., that of Mrs. W., who almost died in his presence. I have not been able as yet to fathom, from a little natural delicacy on the part of the relations to divulge the habits of the departed, yet I trust I shall be in a position ere long, to ascertain the real facts of the case for you. The author then alluded to a communication from Dr. Varrentrapp of Frankfort-on-the-Maine, to the Epidemiological Society, on cholera, which was read before the Society in August, 1854. In that communication Dr. Varrentrapp stated, that several persons had died of cholera after having partaken of "sweet cider" (before fermentation) and "sweet wines" (before fermentation). Mr. Tucker endeavoured to prove that the juices of apples, such as are used for making cider, (which are allowed to remain in heaps "to sweat," for some weeks before they are ground up for the press,) was not then cider; that such juice or juices were not considered as cider until the first and vinous fermentation was perfected. The author mentioned that sweet wort, and sweet wines, so called, or the juice of the grape before the vinous fermentation was perfected, acted as powerful aperients, or drastics, as did the juices of apples, as named by Dr. Varrentrapp. He therefore contended that cider as a prophylactic of cholera could in no way be negatived, as some might imagine, who are not conversant with the beverage or its mode of manufacture, and who might suppose that the apple juice becomes cider, as soon as expressed from the prepared apples.

The author concluded his paper with a few observations on cider-vinegar, or cider in its second stage of fermentation. A vote of thanks was accorded to Mr. Tucker, and it was resolved, that a committee be formed, to pursue the question of the vegetable and mineral acids as prophylactic of cholera.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

November 16, 1855.

Dr. Aldis in the Chair.

Mr. Martyn communicated a case of

SEVERE INFLAMMATORY CROUP,

in which alcoholic stimulants, freely administered, rescued the patient from imminent death. The patient was a child aged four years, who had just recovered from the effects of scarlatina. The croupy symptoms became fully established in the course of twenty-four hours from first being seen. The fever was very high, and the obstruction to the circulation through the lungs very imminent, and the characteristic symptoms of croupy inspiration very alarming. These symptoms were treated as usual with promptness and the ordinary remedies. The patient was put under the influence of tartar emetic and calomel, and a large blister was applied to the neck. The next day the symptoms continued as before, but towards the evening the third stage, or that of collapse, became established. The face became dusky and the skin covered with a damp perspiration, the mouth and lips purple and congested, and the efforts at respiration alarming. Under these circumstances the antimonial and mercurial treatment was omitted, and recourse had immediately to stimulants. He was ordered half-an-ounce of brandy, given diluted, and a less quantity at intervals of an hour, or oftener if it could be swallowed; this was accompanied by the administration of chlorate of potassa every hour, in combination with good nourishment. The next day the breathing was very laboured and difficult; the child was decidedly relieved. He continued to mend under the above treatment by brandy, though for some days the chest symptoms rendered his recovery doubtful. In the remarks which Mr. Martyn offered on the above case, he considered that the time for the successful use of tartar emetic, etc., soon passed away, and that exhaustion soon waits upon the patient and demands the opposite kind of treatment. He considered that brandy was in every way preferable to any of the other stimulants used in the third stage of croup, as ammonia, senega, and the like. It had the advantage of being acceptable to children, and of producing more decided and permanent effects than any other stimulant. He was then led to make a few remarks upon the general lowering and evacuating treatment adopted in all acute diseases, the effect of which, in conjunction with the spare and starving diet, is soon to reduce the patient into such a stage of exhaustion as to render him unable to combat the symptoms of disease. Should we not, then, recognize this element in all such diseases more readily than we do, and be ready at an early stage to administer alcoholic stimulants as soon as the evacuants employed have had fair play? Surely, it is too late to delay their administration until exhaustion has too truly developed itself. Such stimulants do not augment inflammation but maintain the vital powers, whilst the natural sources of power, as nutrition, are cut off; and if stimulants do not directly combat inflammation, they surely, by supporting the system, give opportunity and fresh impulse to those vital forces that are always tending to subdue inflammations.

Mr. Martyn then related a case of

POLYPUS UTERI,

which was removed by ligature. The operation was attended with some considerable difficulty in carrying the threads round the peduncle of the tumour, the double canula of Gooch being employed. The polypus came away after a few days.

Dr. Aldis exhibited a

FIBROUS TUMOUR,

which had been attached to the fundus of the uterus and to a portion of small intestine, causing obstruction in the latter, stercoracous vomiting, and peritonitis. The patient was 26 years of age, and had never suffered from any particular constitutional disturbance until about three days prior to her death, having only complained of pain in the hypogastric region. Six months before her death she had been confined with a large healthy child.

The Society then adjourned.

NORTH LONDON MEDICAL SOCIETY.

January 9, 1856.

Dr. Hare, President, in the Chair.

The nomination of officers for the ensuing year took place. After this a paper was read by Mr. Zachariah Laurence

ON THE PATHOLOGY OF CANCER.

Mr. Laurence discussed four points in the pathology of the disease:—I. Its hereditary nature; II. Its relation to tubercle; III. The relation of the secondary to the primary deposits; IV. The classification of malignant growths. I. Its hereditary character:—Numerical investigation of 304 cases exhibited a hereditary predisposition to the disease in 14·1 per cent., or in rather less than one-seventh of the whole number of cases.

Attempting to solve the question by an indirect and totally different method, viz.: by a reference to the comparative mortality of cancer to phthisis (an acknowledged hereditary disease)—the relative fatality of the two diseases is as 1 to 8 nearly. From these premises it may be concluded, that cancer, as a rule, is not a hereditary disease; and that cases of obviously inherited tendency must be viewed as the exception, not as the rule. II. The relation of cancer to tubercle:—The possible coexistence of the two diatheses is established, but is of rare occurrence. Mr. Laurence threw out the suggestion, whether the cancerous and tuberculous predispositions might not perhaps be regarded as to a certain degree alternating (vicarious) to one another? At any rate Mr. Laurence found in 36 cancerous patients, 13 who knew of a blood relation having died of phthisis. III. The relation of the secondary to the primary deposits:—From the consideration of a number of cases, one positive conclusion may be arrived at, that special primary deposits are followed by special secondary deposits. It is further probable that, where the lungs become the seat of secondary formations, they do so through the medium of the vascular system. IV. A Classification of Malignant Growths:—This must be based on anatomical details. Proceeding from such a basis, Mr. Laurence offered the following classification of cancerous growths:—Malignant Growths (Cancer. auctoris): — 1. Scirrhus, 2. Encephaloid cancer (*vulg. sic. dict.*); 3. Melanosis; 4. Villous cancer (Rokitansky); 5. Osteoid cancer (Paget); 6. Colloid cancer; 7. Enchondromatous cancer (*auct.*); 8. Fibrous cancer; 9. Fibro-plastic cancer; 10. Nævoid cancer (*cancer cirrsoides*, Müller); 11. Epithelial cancer (Paget).

After discussion, in which the President, Messrs. Hainworth, Cattlin, and Skinner took part, the Society adjourned.

MEDICAL NEWS.

The Appeal to the Poor-Law Medical Officers.—Proceedings at Banbury.—A Meeting was held on Tuesday last, convened by invitation, at the residence of Mr. Chesterman, Banbury. It consisted of nearly all the Medical Practitioners resident in the Banbury Union, among whom, happily, the greatest good-feeling and unanimity exist. There were present, Messrs. Chesterman, Morris, Grimbly, Botham, and Smiles, of Banbury; Messrs. Colegrave and Hyde, Bloxham; Mallam, Hook-Norton; and McGreal, Balscott. Messrs. Rye, Griffin, Brayne, Douglas, and Wise, of Banbury, and Pritchard of Hook-Norton, being unavoidably absent, sent letters expressive of their anxious wish to co-operate with their Medical brethren. The general conviction was that the time was now arrived when, by unity of action, and by a well-organized and energetic movement among the Profession, the just rights and fair remuneration of the Poor-Law Medical Officers might easily be attained; and an earnest desire existed that other localities might evince the same friendly spirit of organization to obtain their redress. The following resolutions were unanimously carried:—"That this Meeting, viewing the dependent position and badly-remunerated services of the Poor-Law Medical Officers, recognizes and hails with satisfaction the present united efforts of the Profession to effect a change in the system. That this meeting, adopting the recommendation of Mr. Piggott's Committee of the House of Commons in 1854, viz.: 'that the salaries be raised and increased, and that the districts be readjusted,' further desires that the Medical appointments and duties of the Poor-Law Medical Officer be placed under the immediate control of a Medical Inspector, appointed by the Government for that purpose. That, for the efficient carrying out of the foregoing resolutions, it is expedient that a petition be presented to the House of Commons as early as possible in the forthcoming session, and that the county and borough members be earnestly requested to support its prayer." The appointment of Mr. Grimbly as Local Secretary, with power to receive a small subscription to defray the incidental expenses, and a vote of thanks to the Chairman, terminated these very friendly and, it is to be hoped, useful proceedings.

We are credibly informed that Dr. G. F. Collier, of No. 32, Spring-gardens, and Bohemia House, Turnham-green, has kindly volunteered his scientific services, to oppose the evidence of the Medical witnesses for the Crown, respecting the alleged death of Mr. J. P. Cook, from *strychnia*, administered by William Palmer. It is proper to state that this offer has been made in a pure spirit of philanthropy, and without any reference to pecuniary remuneration for the services proposed to be rendered.

DEATHS.

Ferraby.—January 9, at Swaffham, Norfolk, Charles Ferraby, Esq., Surgeon, in his 60th year.

APPOINTMENT.

Hull Infirmary.—Mr. William H. England has been appointed House-Surgeon to the Hull General Infirmary.

Loughborough Dispensary.—A ball in aid of the funds of this Institution took place last week, under the patronage of the leading nobility and gentry of the neighbourhood. The total proceeds were £161 3s.

Leicester Infirmary.—At a meeting of Governors of this Institution last week, Earl Howe, the President, said that the expenses were so enormous that the number of beds (115) must be decreased unless the funds were correspondingly increased. The income of last year was £1840, and the expenses of the Infirmary alone £2881. Upon this state of things, one of the Governors, on the ground that the Medical men had signed a certificate that total abstinence from alcoholic liquors was perfectly compatible with health, proposed that a saving of £200 should be effected by discontinuing the use of alcoholic beverages; whereupon, Dr. Shaw protested against such a motion, and suggested that medicines might as well be added to the resolution, as they would come under the same category. Mr. Macaulay said that he should decline to be an officer of the Institution if he had not full power to order any stimulant he judged desirable. The motion was negatived by a large majority.

Testimonial to Drs. Joseph and William Bullar, of Southampton.—Steps are in progress to present these gentlemen with a Testimonial, for "the many valuable services rendered gratuitously for a number of years by these gentlemen, and their disinterested labours in the cause of the poor." The subscriptions already announced amount to upwards of £193.

The Guardians of the City of London Union have passed a Resolution, that the books of the Medical Officers of that Union shall be open for the inspection of the Medical Officer of Health for the City of London on Wednesday in each week, from 10 to 4 o'clock.

Medical Witnesses' Expenses. — Special Agreement.—At the Southampton County Court last week, the case of Weston *v.* Jones came on. It was an action brought by Mr. Weston, Surgeon, of Shirley, to recover an account, in which the only disputed item was a charge of 12 guineas for attendance, for four days, at the assizes at Winchester, to give evidence in a case of criminal assault on the daughter of defendant. The plaintiff had not been examined by the magistrates, nor subpœnaed, and he refused to attend at the assizes, unless on a special agreement that he should be paid his expenses, and 2 guineas a-day. The solicitor for the defendant said that, though the plaintiff was not subpœnaed, he went to Winchester in the character of a witness, and was entitled to no more than the county allowance, £4 11s. 6d., which he had received. After a legal argument of some length, his Honour said, the proof as to the special agreement was unanswerable, and directed payment of the whole amount.

London Fever Hospital.—Ten deaths have occurred in this Institution between January 11 and 19, all from typhus. The Hospital is at present very full.

THE QUEEN, in the exercise of her sympathy for the sick and wounded of her army, manifested by presents of various appropriate kinds, has again sought to lighten the monotony of hospital life, by sending several copies of appropriate songs, for the amusement of the inmates of the General Hospital, Fort Pitt.

ACCOMMODATION FOR SICK TROOPS.—On Saturday, Mr. G. R. Dartnell, Chief Medical Officer, First-claff Staff-Surgeon Battersby, and Surgeon R. Hassard, Ordnance Medical Department, with others, assembled at the Chatham Garrison Hospital, forming a Board for the selection of buildings for the accommodation of sick troops.

SUICIDE BY SWALLOWING A RED HOT POKER.—On Sunday evening, December 23, at 10 o'clock, a man in the prime of life, but whose appearance betokened poverty and misery, entered the Grantham Arms, Dyer Street, Leeds, and having called for a pipe, sat down moodily by the fire. Two or three persons were sitting in the room, but the stranger was not heard to speak a word. After sitting thus for ten minutes, the man put a poker into the fire, and, when it had become red hot, took it out, and knocked it against the floor to remove any excrescence on it. He then deliberately put the red hot end of the poker down his throat. The persons present caught hold of him, and, having removed the poker from his possession, bathed his mouth with warm water. The man was ultimately removed to the Mendicity office, where every attention was shown him; and, in answer to inquiries as to the cause of the rash act, he only replied that it was a very foolish act, and he did not know what he was doing. His tongue, throat, and under lip, were very much burnt, from the effects of which he died last Friday. The only information that can be gained about the deceased is, that his name is Thomas Barker, and that he came from Bolton, in Lancashire. An inquest was held on the body at the Court House, last Saturday, before John Blackburn, Esq., when a verdict was returned—"That Thomas Barker died from the effect of the burns which he had wilfully caused on himself; but there was no evidence to satisfy the jury as to the state of his mind."—*Leeds Mercury*.

DR. RAE, AND THE ARCTIC EXPEDITION.—The Lords Commissioners of the Admiralty having, by a Proclamation of March 7, 1850, offered the sum of £10,000 to any party or parties who, in the judgment of the Board of Admiralty, should by virtue of his or their efforts, first succeed in ascertaining their fate; the Commissioners have given notice, that Dr. Rae having claimed to be entitled to the reward of £10,000 under the terms of the third paragraph of such proclamation, they will proceed within three months from the date hereof, to adjudicate on such claim, and that all persons who, by virtue of such proclamation deem themselves entitled to the whole or any part of the reward in question, must prefer their claims within such time, after the expiration of which no claim will be entertained.

DEATH FROM CHLOROFORM.—We are informed by Dr. Rutherford that a death took place in the town of Kelso on the afternoon of Monday, the 14th instant, after the administration of chloroform to a patient whose leg it was found necessary to amputate.

THE RUGELEY POISONINGS.—The *Wolverhampton Chronicle* says that "a book has been found in Palmer's library, which treats of poisoning by strychnine, and in one page of this book there are a number of marginal notes in Palmer's handwriting, descriptive of the symptoms and effects of strychnine, which exactly, in every particular, correspond with the symptoms exhibited by the late Mr. Cook immediately before his death. This book is in the possession of the police, and will be produced at the trial."

SMALL-POX is still prevalent in the Ordnance Hospital, Woolwich. Three deaths occurred last week, vaccination having been performed in all.

MORTALITY NOTABILIA.—1121 deaths were registered in London in the week that ended on Saturday, January 19th. The average number of deaths, corrected for increase of population, is 1332 in the third week of January; which is the coldest week of the year, in the ordinary course of the seasons. The deaths were 211 below the average. 264 persons of all ages died of small-pox, measles, scarlatina, hooping-cough, typhus, and other zymotic diseases. Hooping-cough and typhus are epidemic. 132 persons died of consumption, chiefly of the age of 20 and under 60; 26 of apoplexy, and 34 of paralysis; 191 of inflammation of the lungs and air tubes. 12 women died of childbirth.

BIRTHS.—The births of 817 boys and 827 girls, 1644 children, were registered; average 1494.

At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·732 in. The reading of the barometer increased from 30·40 in. at the beginning of the week to 30·55 in. by 10h. a.m. on the 13th; decreased to 29·82 in. by 3h. p.m. on the 15th; increased to 29·87 in. by 9h. a.m. on the 16th; decreased to 29·35 in. by 9h. p.m. on the 17th; was nearly stationary at this reading till after 9h. p.m. on the 18th; and then further decreased to 29·07 in. by the end of the week. Rain fell on the last four days of the week. The wind blew chiefly from the south and south-west, with an average horizontal movement of about 119 miles each day. The sky for the most part was overcast, and the electrical state of the atmosphere was positive throughout the week. The mean temperature of the air was 38·7°, which is 2·7° above the average of the same week in 38 years. The highest temperatures occurred on Friday and Saturday, and were 50° on each day; the lowest, which occurred on Tuesday, was 24·3°. The entire range of the temperature of the week was 25·7°. The air was milder than in the previous week; the mean daily temperature being above the average on the last four days. The mean dew-point temperature was 35·8°, and the difference between this and the mean air temperature was 2·9°. The mean temperature of the water of the Thames was 37·5°.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Popnla-tion.	Small-pox.	Measles.	Scar-latina	Hoop-ing-Cough.	Dia-rrhœa.	Ty-phus.
West.....	376,427	1	4	3	4	4	10
North	490,396	6	4	6	10	1	13
Central ..	393,256	5	5	5	13	2	8
East.....	485,522	2	9	6	15	6	16
South	616,635	8	3	15	18	4	15
Total..	2,362,236	22	25	35	60	17	62

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, January* 19, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, Jannary 19, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	° 38·7						° 39·1
Mean Temperature.....							
ALL CAUSES	1121	495	156	211	217	42	1211·4
SPECIFIED CAUSES	1118	493	156	210	217	42	1199·9
DISEASES:—							
1. Zymotic Class	264	180	33	37	14	..	259·1
2. Dropsy, Cancer, and others of uncertain seat	37	6	4	17	10	..	49·7
3. Tubercular Class	177	61	62	49	5	..	190·1
4. Of Brain, Nerves, etc. ..	137	62	13	21	40	1	131·8
5. Of Heart, etc.	48	8	8	9	22	1	46·0
6. Of Respiratory Organs ..	227	85	18	50	62	12	269·4
7. Of Digestive Organs ..	47	17	7	12	11	..	67·1
8. Of Kidneys, etc.	15	1	3	4	7	..	12·9
9. Of Uterus; viz.—Puerperal Disease, etc. ..	9	2	6	1	..	..	8·9
10. Of Joints, Bones; viz.—Rheumatism, etc. ..	5	2	2	1	..	..	6·9
11. Of Skin, etc.	2	1	..	..	1	..	2·5
12. Malformations	6	6	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	29	26	..	3	..	..	33·2
14. Atrophy	43	24	..	1	18	..	24·1
15. Age	53	..	..	..	26	27	64·1
16. Sudden	6	5	..	..	1	..	7·0
17. Violence, Privation, etc...	13	7	..	5	..	1	23·7
CAUSES NOT SPECIFIED.. ..	3	2	..	1	..	..	11·5

DEATHS IN PUBLIC INSTITUTIONS for the Week ending January 19:—

	Males.	Females.	Total.
Workhouses	58	74	132
Prisons	..	..	..
Military and Naval Asylums ..	6	..	6
General Hospitals	23	17	40
Hospitals for Special Diseases ..	10	10	20
Lying-in Hospitals	2	4	6
Military and Naval Hospitals ..	10	..	10
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	2	..	2
Total	113	105	218

BOOKS RECEIVED.

The Sanitary Condition of Paddington. By Dr. Graily Hewitt. London: Churchill. 1856.

Headaches, their Causes and their Cure. By Dr. H. G. Wright. London: Churchill. 1856.

TO CORRESPONDENTS.

Next week we shall publish the first of a series of Clinical Lectures delivered at Charing Cross Hospital, by Dr. Hyde Salter.

We must still decline to publish the whole of Dr. John Renton's letter. Our doing so would involve us in endless controversy. We have published Dr. Renton's disavowal of the assistance of the publicans in his election to the Edinburgh Town Council, but as to the other matters alluded to we are profoundly ignorant. We are Davus, not Œdipus; and do not aim at the unfolding of riddles.

A Country Practitioner.—There is no good reason whatever for supposing that constitutional maladies, such as phthisis or scrofula, can be propagated from one family to another by means of vaccination.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Observing in your last week's Journal, January 12, under the head of "Correspondents," the mode of detecting chicory, I beg to state that I have found Iodic Acid to be a test for that substance, but it cannot be used to discriminate chicory from coffee, because the latter also decomposes that acid. In cases of suspected poisoning by opium, however, it is important to bear in mind that an infusion of chicory or coffee may be mistaken for morphia when iodic acid is employed in making the preliminary analysis.

The most convenient way of applying the test is as follows:—Pour a little of the infusion of chicory or coffee upon a piece of glass or a plate; then add a drop or two of iodic acid, and immediately place over it a small piece of starch paper, which must be gently pressed down so as to become saturated with the liquid. In the course of a few seconds, or a minute or two, the free iodine will be seen to form the blue iodide of starch. The test may be applied in a test tube, but the above is the most certain mode of developing the iodine.

I am not aware that this test has been pointed out as a test for chicory and coffee; if not, it may be worth the attention of your correspondent W. L., and others, when searching for the presence of opium in organic mixtures. I am, etc. H. OSBORN, L.R.C.P. etc.

Southampton, January 18, 1856.

ARE GENERAL PRACTITIONERS IN THE COUNTRY GOOD FOR ANYTHING?

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Between money-getting specialists and supercilious London Physicians, that much-abused animal, the "country General Practitioner," has but a poor chance; now it seems, he is not fit to make a *post-mortem*, but a young "pure" from a London Hospital must be sent down special for every Medico-legal inquiry. Yet I should like to ask this question?—

If a M.B. Lond., 1849, and Associate of King's College, and Hunterian Prosector, Royal College of Surgeons, is not fit to make a post-mortem; is a sexagenarian, who got his anatomy at Oxford, the proper person to say so? I am, etc. ONE OF THE PROSCRIBED.

Mr. Anderson's paper on Leucorrhœa will appear in our next Number.

Mr. E. Wilkinson's second Letter, on the subject of Vaccination, will appear next week.

A Student.—Does our Correspondent mean the Fellowship Examination at the College of Surgeons? The Examinations in Materia Medica at Apothecaries' Hall have been discontinued. No examinations in Chemistry, of the nature alluded to, ever took place as far as we have been informed.

Dr. Ranking's Lecture has been received, and will be inserted as soon as our space will permit.

Dr. Snow Beck's paper on the frequency of Laceration of the Perinæum in Primiparæ will shortly be published.

F. J.—Yes.

Omega.—The Society of Apothecaries might probably bring an action at law for the recovery of the remaining £4 4s, but we are not aware of any cases in which they have done so. The instance alluded to was one in which a person refused to pay an account, on the ground that the Practitioner was not licensed to practise *intra urbem*, having only a country licence; but the objection was overruled, as it was held that the licence to practise was a sufficient test of qualification—and the Court could take no cognizance of a mere pecuniary question between the Society and its licentiates.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I wish to direct your attention to an advertisement in Monday's *Times* (page 4) in which the Vestry of the Parish of St. George's East give notice, that they will elect a Medical Officer of Health to their district, at a salary of £200 per annum, "such Officer not to act as a Physician or General Practitioner." And yet this same Board has elected a Surveyor at £250, and a Vestry-Clerk at £400 per annum, *without any restriction*; and an Inspector of Nuisances at £150, also allowing him to do other work. Your comments thereon will doubtless be acceptable to the Profession. I am, etc. SCRUTATOR.

COMMUNICATIONS have been received from—

DR. ANDREW SMITH; MR. R. BATEMAN; THE GEOLOGICAL SOCIETY; DR. RANKING; DR. HYDE SALTER; OMEGA; A COUNTRY PRACTITIONER; DR. WEBSTER; DR. SNOW BECK; DR. R. U. WEST; MR. HENRY SMITH; MR. E. WILKINSON, Aspatria; MR. KESTEVEN; DR. COCHRANE; DR. RUTHERFORD; DR. RENTON; DR. BAINES; A STUDENT; DR. RANSOM; MR. HENRY LEY; DR. OSBORN; MR. BRITTON; THAUMATURGUS; ONE OF THE PROSCRIBED; DR. QUAIN; MR. ORD; DR. HILLIER, University College Hospital; the Royal Institution; DR. RAMSKILL; SCRUTATOR; MR. R. GRIMBLY; F. J.

APPOINTMENTS FOR THE WEEK.

JAN. & FEB.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
26. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.: Subjects—Dr. Murphy, "On the Use of Chloroform in Childbirth."—Dr. Snow, "Further Remarks on the Cause and Prevention of Death from Chloroform." ROYAL BOTANIC SOCIETY, 3¾ p.m.
28. MONDAY.....		ROYAL GEOGRAPHICAL SOCIETY, 8½ p.m.: "On the probable Route of Sir John Franklin's Expedition." The Arctic discussion to be continued.
29. TUESDAY	Operations at Guy's, 1 p.m.	ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy."
30. WEDNESDAY..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	HUNTERIAN SOCIETY, 8 p.m.: Dr. Barlow "On a Case of Diseased Kidney simulating Obstructed Bowel." MICROSCOPICAL SOCIETY, 8 p.m.
31. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	ROYAL SOCIETY, 8½ p.m. ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."
1. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	WESTERN MEDICAL AND SURGICAL SOCIETY, 7 p.m. Meeting of Council, 8 p.m. Dr. Richardson "On the Unity of Sanative and Curative Medicine." ROYAL INSTITUTION, 8½ p.m.: Professor Tyndall "On the Disposition of Force in Paramagnetic and Diamagnetic Bodies." BOTANICAL SOCIETY, 8 p.m.

ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED AT

Charing-Cross Hospital.

By HYDE SALTER, M.D.

Lecturer on Physiology and Pathology at the Charing Cross Hospital Medical School, and Assistant-Physician to the Hospital.

Lecture I.

HINTS TO DIAGNOSIS.

Introductory Observations—Plan of Clinical Instruction—Rules for Guidance in the Formation of Diagnosis.

Gentlemen,—In casting about for a suitable subject for this my first clinical lecture to you—something that should be at once general and practical—it has occurred to my mind that I could not choose anything that would better fulfil these conditions, or be likely to be more useful to you, or be capable of more frequent application and illustration in my after-instructions, than laying down for you some simple rules for your guidance in the formation of diagnosis. Such rules, if worth anything, must be valuable to all, but especially to those whose practical investigation of disease is all before them. Before, however, entering on the special subject of my lecture, I am anxious to say a few words to you on the plan of clinical instruction which I mean to adopt.

Any plan of instruction is good or bad, according as it tends to render its recipient that which it is desired he should become. Now, it is desired that you should become practical Physicians and Surgeons. Our craft is an art as well as a science, and art you know is the practice of science, as science is the theory of art. The great object, therefore, of clinical instruction should be to make you practical Medical Men, to give you not merely the *savoir* but the *savoir faire*. With this view I shall endeavour to associate you as intimately and practically as possible with the management and treatment of the cases under my care, teaching you to *know*, by making you *do;* extracting from you your own diagnosis and treatment and its rationale, correcting you where wrong and informing you where ignorant. When we have assembled around the bed of a fresh case, I shall ask one of you to make the diagnosis of it for me. I shall then carefully watch him, observe the sequence and purpose of all his questions; how one hangs upon and suggests another; the hidden mental process that the questions imply; where he loses and where he regains his clue, or, as sportsmen would say, the scent; what symptoms deceive him; what he overlooks. When at length he has arrived at his conclusion and is satisfied with it, I shall turn to another and ask him what would be his treatment. I shall, then, in the presence of you all, make my own examination and dictate my treatment. Then, keeping in mind Mr. A's examination and Mr. B's treatment, and having adjourned out of earshot of the patient, I shall show you where and how these gentlemen have erred, (if they have erred at all,) declare what is the matter with the patient, and the reason both of the diagnosis I have made and the treatment I have adopted. This method of clinical instruction will impart an interest and vivacity to your Hospital practice that nothing else will, and little *cliniques* given thus on the spot, and while you are fresh from the bedside of the subjects of them, will make an impression on you more instructive and abiding than anything that could be substituted for them; but, necessarily short and fragmentary, they cannot on the one hand be substituted for regular systematic clinical lectures, nor, on the other, will they detract from their value.

You will observe, Gentlemen, I do not tell you that I shall ask you at the bedside of the patient to *declare* your diagnosis and say in plain English what the disease is that the patient is suffering from; I shall purposely abstain from doing so. The malady might be of such a nature that the mere naming it might fill the poor patient's mind with dread, and add to the sufferings of the body the less endurable sufferings of the mind. Pain is bad, but fear is worse; for the fear of pain is the pain of fear, and thus anticipates the evil that it dreads. The very name of some diseases not only shuts out hope, but fills the mind with the apprehension of protracted and unmitigable suffering. Such horrors need not be anticipated—they will come soon enough. Dr. Graves reprobates, with just severity, the indifference in this respect of Continental teachers:—"I am by no means," he says, "disposed to join in the cant of humanity, but I cannot help feeling that it is scarcely justifiable to lecture upon a patient's case in his presence, and in his native language; that it is cruel to explain (as must, when this method is adopted, be often done) that the patient is labouring under a fatal complaint. During such a lecture, I have often watched the worn and pallid countenance of the sufferer, while he listened attentively to the record of his past and present sufferings, and I have marked the settled expression of despair it assumed when the prognosis thus tediously ushered in was too clearly announced. It is cruel to banish from the sick man's bed his sole remaining comfort; it is unmerciful to scare away hope—his only consolation during hours of pain and watching." In Germany, the Latin language is always made use of whenever it is absolutely necessary to make any observation that might alarm the patient. In Italy, both professors and students are less scrupulous. Thus, Dr. Clark relates that he has heard the case of a phthisical person explained, in all its bearings, by the Professor of Bologna, in the patient's presence; in another instance, which occurred at the same place, a female, labouring under cancer uteri, burst into tears on hearing a detailed account of the nature of her complaint (a).

But, on the other hand, deceiving our patients, or robbing a dying man of the benefit of the full consciousness of his solemn situation, nothing, in my opinion, can justify. Let us, therefore, tell our patient quietly and seriously, and not on an occasion when his bed is surrounded by those to whom his sufferings are matter merely of instruction, how little our art can do for him; or, since the Medical aspect of death is always revolting to the sick poor of our Hospitals, let such an announcement come, except under exceptional circumstances, from the lips of one whose ministrations are associated rather with the after hopes than the antecedent horrors of death.

But, to return from this digression:—Having thus surveyed our ground, and taken our bearings as it were, I shall then intrust into your hands the practical superintendence of the treatment on which we have thus determined, and consider you responsible for its punctual administration; I shall exact from you daily reports of your respective cases, and thus shall secure to you an intimate personal relation with your patients, and the interest that always attends a sense of responsibility. I shall, of course, intrust to you merely administrative functions, reserving the deliberative to myself. I shall endeavour to make my clinical assistants as numerous as possible, so that all may enjoy the advantage in turn, and each have only a very few cases under his observation at a time, that thus he may give them an undivided attention. In this way, Gentlemen, I hope to render you ready, and observant, and practical, wise to see, and quick to do, to make the association in your minds between a pathological condition and its remedy direct and intimate, and, by gradually imposing it, to render a sense of responsibility a wholesome stimulus, instead of, what it is very apt to become, if suddenly thrust on those unaccustomed to it, an intolerable and paralyzing burden.

I do not like to speak in disparagement of that which long usage has sanctioned, and to which the fathers of our Profession have given their countenance, but I think it is impossible to reprobate in too strong terms that laborious and barren idleness of "going round," as it is called, to which English Hospital practice is almost exclusively confined. A swarm of young men rush into a ward which they half fill; lost among them, the Physician makes his way from bed to bed: crowded and hustled, he addresses a few observations to some fortunate half-dozen, who happen to be within hearing and seeing distance; while the great majority, in despair of getting near the bed, stare about at other cases, or whisper in detached groups, and are only aware that the little *clinique* is finished, by the moving on which follows it. Thus, they troop out as they trooped in, and when the visit is done, they have "been round,"—and there all advantage stops.

It may be said "but there are clinical lectures—clinical instruction does not stop with the visit." But what is the use of clinical lectures on cases that have never been watched, o

(a) Graves's Clinical Medicine. Lect. I.

seen even, by the majority of the students? Would it not be just as well to select half-a-dozen cases of any given disease from any book, and lecture on them? Does that lecture deserve the name of *clinical*, which for the majority of the listeners has nothing to do with the bedside.

This is no exaggeration, neither is it the fault of the Medical officers, who fully feel the evil, nor of the students, who are scarcely less alive to it, but of the system of clinical instruction, which does not sufficiently break up and allocate to the students the resources of our Hospitals, but confines their personal acquaintance with the sick to a crowded scramble through the wards. Under such a system of Hospital practice, I believe it perfectly possible for a young man to leave London, after the completion of his Medical education, unable, I do not say to treat, but to recognize even, some of the commonest forms of disease. I would fain hope that the adoption of such a plan as I have just sketched out to you, would preclude the possibility of such a state of things as this, and render it impossible for you to evade a certain amount of practical acquaintanee with your profession.

I have told you just now that I shall endeavour to elicit from you your own diagnosis of the cases placed under my care, and I think that I cannot better employ this, our first occasion of meeting, than by giving you some practical hints that shall enable you to make your diagnosis precise, certain, and methodical. Correctness of diagnosis is an all-important thing: of your practical duties in after-life it will consitute a fair half, for the recognition and comprehension of their nature will be a necessary condition of the correct treatment of the eases that will come under your eare. I think myself that diagnosing disease is a mental process of no mean order, that it calls into exercise some of the highest faculties of the mind, and that to do it well requires a mind minute and exact, scrutinizing and inquisitive, retentive, analytical, capable of generalizing, and close in its reasoning. There is nothing in which the members of our Profession differ more from one another than in their way of making a diagnosis. Given, two men, equally well informed in their profession, with an equal substratum of knowledge to start from, the one's diagnosis will be made with twice the ease and certainty, and in half the time, of the other's. Some blunder and bungle in a blind sort of way; they strike out here and there like a man fighting in the dark, without any aim or method, and their hitting the right thing is little better than a matter of chance; some, on the other hand, address themselves to their work in a way entirely systematic, they do not throw away a single question, or put a purposeless one; there is not one too much, or one too few; they drive each well home; they keep their aim in view with an undeviating steadiness, and follow it up with a pertinacity that nothing can divert or abate: to watch a diagnosis made in this way is one of the greatest treats—I know of few greater; but to listen to one clumsily made is an intolerable infliction; but, worse than this, it is probably erroneous, and, therefore, perilous to your patient; for on a false diagnosis you will hardly raise a correct therapeusis.

Let me, therefore, beg your attention to the following short and simple rules, which I am sure you will find of great assistance to you.

Rule I.—*Gain information in all possible ways without, and additional to, asking questions;* that is, take the testimony of your senses—of sight, hearing, touch, taste, smell; examine well your patient's physiognomy, his expression, his complexion, his general aspect, his manner; observe his physical condition, if there are in it any of those pathognomonic signs that certain diseases hold out; mark the tone of his voice, its strength and weakness, whether there is in it anything emotional, whether it is hurried or deliberate. You will find the habitual practice of this of great advantage to you, and the evidence thus acquired of great value, for—

1st. It is a kind of evidence that cannot be sophisticated. Your senses cannot deceive you, your patient may, at least, may attempt it, and this evidence may either corroborate his oral testimony or refute it. For example, suppose a man, on a club, professes the sight of one of his eyes to have failed, and so to be unable to follow his employment, and to be suspected of *malingering*, and on seeing him you detect an inequality of his pupils, and a slight ptosis of one of his eyelids, which had escaped the uninitiated; you feel at once that the man is probably speaking the truth. Suppose, on the other hand, that a man, whose symptoms make you suspect threatening delirium tremens, denies having taken any spirits for a week, and you smell his breath strongly of gin, you have not only strong presumptive evidence that your opinion is correct, but that the man's statements must be disregarded. This kind of evidence is, therefore, not only the most unimpeachable in itself, but a valuable check on other testimony.

2nd. It gives you a *kind* of evidence that nothing else will. Some things, definite in themselves, and that the senses can recognize, can yet not be described. Those who have once seen them know what they are, but no others. Such things are sometimes very subtle and delicate, but they are often very important and distinctive, even pathognomonic. Take, for instance, certain physiognomies; take the *facies hysterica:* I never saw a good description of this, I could not give one myself, but when once recognized, it is very unmistakable, and very characteristic, and might make all the difference in your opinion of any given case. In some instances, as in skin disease, this sense-testimony is the only evidence you require.

3rd. It is evidence you can obtain without your patient's consciousness; and this under some circumstances is most important, because in some things the consciousness of the patient introduces a disturbing element, and invalidates the conclusions you would draw. For example, in counting the respiration, if your patient knows what you are about he immediately directs his attention to his breathing, he breathes voluntarily, and, inevitably, unnaturally; the moment the will is introduced into the respiratory act, which ought to be unconscious and involuntary, it becomes unnatural. When, therefore, I count the respiration, in order to divert the patient's attention from what I am doing, I feel the pulse, which he imagines I am counting, and so breathes naturally. So, again, with regard to the pulse, in some cases, especially where there is much emotional disturbance, it is very desirable to ascertain its condition without the patient's consciousness, which would at once derange it. Now, taking the wrist would directly inform him of what is going on; I therefore pass my hand over the forehead, and keep it for a few seconds applied to the temples, as if I were feeling the temperature of the head, while in reality I am ascertaining the state of the pulse from the temporal artery.

4th. In some cases it is the only evidence you can get, as in the case of young children, or those who are reduced by their state of disease for the time to the condition of infants, in the etymological sense of the word, that is, cannot express themselves, as, for instance, from mania, coma, or any other condition interfering with intelligent speech.

5th. It will save you an immense deal of time; you may often by a glance obtain an amount of information that it would take a long time to acquire by question and answer. Practice will render this survey of your patient, and your conclusions from it, wonderfully rapid, and moreover, render them more comprehensive and more infallibly correct; you will be astonished by-and-by at the almost instinctive correctness of the impressions you will thus acquire; from the slenderness of the data, the unconsciousness of mental process, and the rapidity at which the conclusions are arrived at, they will seem to you like inspirations. As an instance of the saving of time, see how one's work is shortened by chlorotic lips or a yellow conjunctiva.

Now, there are two kinds of such evidence as this—sense-evidence: one is that which is gained without any special process, without the use of any instrument or artificial means, which is immediate, impromptu, and of which the patient is unconscious; the other is that acquired by some instrumental means or special process, as by the stethoscope, by physical examination, the microscope, chemical re-agents, etc. It is the former to which I particularly refer.

Rule II.—*Lay greater stress on some signs than on others*; as, for example—

a. On anatomical than on functional disturbances. Sometimes symptoms are discrepant — the tide of anatomical evidence will set in one direction and functional in another; in this case, always give the preference to evidence of an anatomical nature, for anatomical signs are always of more certain import. Functional symptoms have often the value of *probability* only—they *imply;* anatomical symptoms have generally the value of *certainty*—they *assert*. For example; suppose a patient to have been suffering for a week from all the symptoms of acute pleurisy—intense pain an inch or two below the nipple, inability to take a deep breath, or to lie on that side, intolerance of pressure in the corresponding intercostal spaee or spaces;—but suppose that, on listening, you hear pure and

natural respiratory murmur, and a clear absence of all friction-sounds, and that percussion and auscultation give you evidence of the thoracic viscera being in every respect anatomically healthy. Here you have a dilemma; anatomy says one thing, function another—which are you to believe? Anatomy, certainly. Why? Because you *know* that if the cause of pain had been pleuritis, you must by that time have had some anatomical result of it; its absence, therefore, egatives the supposition: and so you infer that it is rheumatism of the intercostals, or other muscles of that part of the parietes; or neuralgic; or, if in the case of a young woman, possibly hysterical.

b. Lay greater stress on some functional symptoms than on others; for example, on tenderness than on pain. Suppose a patient were to come to you one day, complaining of colicky pain in the epigastrium and about the umbilicus, passing through to the back, and the next day you find he has tenderness in the right iliac fossa, you know that this last is the real seat of the mischief, and the other merely the situation to which the pain was *referred;* this is a phenomenon of frequent occurrence in abdominal affections. Again, vomiting has a certain indicativeness, but blood-vomiting a much higher and more distinctive one.

c. Distinguish between *pathognomonic* and *indifferent* symptoms. The value of indifferent symptoms—*i. e.*, those common to many diseases—is general, that of pathognomonic, special; indifferent symptoms may leave you many alternatives, pathognomonic, none. Fever, for example, is an indifferent symptom, but the several stages of the fever-paroxysm occurring at the same time every other day is pathognomonic; it leaves you no alternative; you know at once what you have to deal with.

Rule III.—*Pursue a definite order in your catechizings.* The principle on which a diagnosis is made is that of elimination, of exclusion, or, as logicians say, of exhaustion, showing what the disease is by showing what it is not. Every answer that is elicited strikes out a certain number of contingencies, and, so, circumscribes the area of what is still uncertain. Indeed, the making a diagnosis is very much like the game of "Twenty Questions," in which several people fix upon one word or thing, while another is to ascertain what that word or thing is by the answers he gets to twenty questions put to them in order. If the questions are well and methodically put the discovery of the subject thought of is almost inevitable, however eccentric or bizarre it may be, and often a good deal within the prescribed number of questions. To take, for the sake of illustration, an example from this game which I remember to have occurred. *Q.* Is it animal, vegetable, or mineral? *A.* Animal. *Q.* Is it marine or terrestrial? *A.* Marine. *Q.* Is it natural or artificial? *A.* Natural. *Q.* Is it useful or ornamental? *A.* Ornamental. Here was an animal marine production, used as an ornament in its natural state. At this stage the questioner guessed *a pearl*, and his guess was right; indeed, the answers to these four questions seemed to leave no alternative. See now how much each of these questions excluded, how much the first—two-thirds, we may say, of created things; how much the second—more than a half of this remaining third; then, how much the third; while the exclusion implied by the answer to the fourth was almost complete. Just such, and with such an object, should be the interrogations put in the diagnosis of disease.

Now, this principle of elimination or exhaustion gives rise to two rules with regard to the order and kind of questions put to your parties.

α Put first those questions which exclude the greatest number of alternatives, that is, what are called "leading questions."

β Let each of the questions be devoted exclusively to the elimination of a certain amount of those alternatives, which the previous answers have left undecided; let them apply strictly and solely to what is left unsettled, that is, do not throw away any questions on points that previous questions have set at rest.

The order and kind of questions, based on these rules, that seem to me the best, and which I commonly observe, is something as follows:—

1. Where is the pain (or symptom, whatever it may be)?
2. How long has it existed?
3. Has it ever occurred before?
4. The apparent cause?
5. In what way the functions of the organ are disturbed?
6. The lædentia and juvantia?
7. Anatomical evidence?
8. Physical examination?
9. History, especially with regard to—
   - α Inherited diathetic peculiarity, such as *struma*, *gout*, *rheumatism*, etc.?
   - β Alcoholic, or other intemperance?
   - γ Syphilis?
   - δ Occupation?

It would not be necessary to put all these questions in all cases, some would be settled by a few of them; for example, most stomach affections would be settled by the fifth or sixth, most chest affections by the eighth; many affections would carry you on to question 9, clause α; *delirium tremens* to clause β; clause γ will often be the turning-point of your diagnosis; while *lead palsy* would carry you on to clause δ. Often, however, you will not have to put all the questions; the answers that you will receive from some will involve an inversion of the order of the rest, and you will make a short cut to a determining point.

Rule IV.—*Other points must be observed in examining your patient, besides method.*

First. Be slow and deliberate; give yourselves all the advantage over, and hold on, your patient, that you will gain by deliberation, self-possession, and presence of mind. Besides, you will, by a sort of infection, induce a similar character in your patient's answers, and you will have time to deliberate on the answers you get.

Secondly. Ask one thing at a time, and let the single object of that question be as definite as possible.

Thirdly. Pin your patient to your question; do not let him wander and be irrelevant, do not let him be indefinite, do not let him be evasive. You will often be troubled with answers of all three kinds, especially from some classes of patients; the first kind you will get from old women and the garrulous, the second from the Irish, and the third from *malingerers;* indeed, you might name them the *responsio garrula*, the *responsio Hibernica*, and the *responsio mimotica*, respectively. I know of few things more difficult than making a prompt diagnosis out of an Irish patient; he calls his chest his stomach, and his stomach his chest; his heart is ubiquitous; if you ask him how long he has been ill, he tells you "a good bit;" and if he is better, he says he is "no worse." I speak of the lower orders of Irish only, and I mention it as a warning, that you may know what to expect, and prepare yourselves accordingly, when you hear the Irish accent.

Fourthly. Be considerate and patient, and kind in your manner. This you will find of immense advantage, not only to your patient but to yourself. You will get both kinds of evidence much better, more truthful, and more natural—both that which you will receive in answer to questions, and that which your patient will furnish you with unconsciously to himself. In timid persons, and those whose affections are of an emotional character, this point is of especial importance, and most of all in children; if you once set a child crying, your further investigation of its case is greatly embarrassed. Dr. West, in his work on the Diseases of Children, has made some admirable observations on this point that ought to be engraved on the memory of every one having anything to do with the treatment of children: I will rather refer you to them than mutilate them by abbreviation.

Rule V.—In difficult cases, where you are at a loss, it is often a good plan to forego the ordinary method of interrogating, and adopt some other. One of these is to

Let the patient tell his own story in his own way.—In this way sometimes things will creep out that set-questions had not elicited, or questions may be suggested which before had not been thought of, but which may reach exactly the point which was required to clear up the doubt. Another is,

Begin at the head and go downwards, as hunters "draw" a forest; pass through all the organs in a regular anatomical order, so that the state of none may elude you. In this way sometimes you may stumble upon some mischief in a part where you had little suspected it: at any rate you will be sure of meeting it where it exists, and will feel that all the organs which in your progress you leave, as it were, in your rear, may be disregarded.

Rule VI.—*Do not be content till you have elicited a natural group of symptoms*, but when you have once done this, assure yourself that you have attained your object. Do not let any

amount of evidence in the opposite scale countervail it—the conclusiveness of such evidence is absolute, not relative; do not let any improbabilities, any deficiency of cause, any suspicion of collusion, shake your faith in the infallibility of this internal, this intrinsic evidence. No amount of sophistication can enable the uninitiated to simulate the natural and self-consistent features of disease.

Rule VII.—*Make yourselves what jurists call "skilled witnesses;"* familiarize yourselves with all those means of diagnosis, and of enlarging and rendering more precise your knowledge of disease, which the Physician of the present day finds at his command or you may renounce all hope, either of doing justice to yourselves or your patients, or of competing with your brothers in the Profession, who are familiar with the use of these invaluable instruments—instruments, the revelations of which have almost transformed the face of modern medicine. There was a time when people used to die of dropsy; nobody dies of dropsy now. Those who used to die of dropsy now die of lung, or heart, or liver, or ovarian, or kidney disease. And what has shown us this? Mainly, the stethoscope, the microscope, and the test-tube. We cannot afford to depreciate or despise these aids, we shall be but blind guides without them; and, besides, human life is too precious a thing, and our tutelage of it too solemn, to permit us, in anything that appertains to it, to give way to prejudice, or a miserable conservative obstructiveness.

The stethoscope was despised once, and there are many now of the same class of mind who attempt to depreciate the microscope, the chemical reagent, the stethometer, the weighing machine, the ophthalmoscope, the test-paper, and the spirometer. We may safely leave them to fight their own battle. In the mean time, instead of *abusing* them let us *use* them, let us make ourselves masters of them, let us add them to our resources.

Rule VIII.—Lastly, *Observe for yourselves, think for yourselves, judge for yourselves.* Do not constantly carry about with you opinions that you have read as the interpreters of what you see; if you do, it will constantly hamper and shackle your minds, you will get yourselves into a habit of seeing only what others have seen, and be blind to a great deal of instruction that disease will offer you. The present generation of Medical men read too much and think too little; the chronic and almost endemic malady from which we suffer is a plethora of books. There are some who can never see or discuss a case without quoting some authority; instead of seeing with their own eyes they are always seeing with the eyes of Graves, or Allison, or Andral.

Now, in literature, "authority" may be final, and the author of the Iliad and the Æneid may determine the force of a particle or the length of a syllable; but in science this is not so, and the testimony of nature must always overrule that of her interpreters. If you want to make any advance in Medicine; if you would add anything to the present stock of our knowledge; if you would receive into your minds the teachings of disease in all their simplicity and freshness, you must see and hear with your own eyes and ears, and interpret for yourselves. Vindicate to yourselves, and constantly exercise, that attribute of the best class of minds—independent and self-reliant thought; take as your own the motto of our highest scientific society, and early learn *nullius in verba magistri jurare.*

ORIGINAL COMMUNICATIONS.

ON LEUCORRHŒA.

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To consider leucorrhœa as a disease *per se*, and treat it as such, is an undoubted fallacy; it is but the outward manifestation of some local or constitutional disturbance, and will rarely be removed by local treatment alone. In cachectic and debilitated states of the system, we know full well that the tonsils will occasionally become affected with subacute inflammation; they may become hypertrophied, or they may be covered with aphthous patches, too often dignified with the name of ulcers, or they may be affected in reality by ulceration from specific causes, as scarlatina maligna, or syphilis. Now let us look at the anatomy of the tonsils, and we cannot do better than take the description of Cruveilhier, the well-known anatomist, and a man unbiassed by any of the more recent doctrines:—"Les amygdales établissent le passage entre les follicules muqueux et les glandes; elles sont constituées par une agglomération de follicules qui font suite aux follicules de la base de la langue. Ces follicules s'ouvrent en plus ou moins grand nombre dans de petites cellules ou lacunes, lesquelles s'ouvrent elles-mêmes à la surface interne de l'amygdale, par les trous indiqués; la membrane muqueuse, revêt la surface interne de l'amygdale, et pénètre par les trous dans les cellules qu'elle tapisse." We here see that these organs, in some measure, resemble the os and cervix uteri, and may therefore be liable to suffer under a similar state of system. In both instances, there is a plentiful supply of arteries, veins, and nerves, but the principal point of similarity consists in the glandular structure; inasmuch as between the rugæ of the cervix and about the os, numerous mucous follicles and glands exist, secreting, in the unimpregnated state, thick, tenacious mucus, and in the impregnated condition, the plug which prevents the escape of the ovum, and renders superfœtation impossible. This secretion is liable to change in different states of system, and, in addition to this, the vagina, being a canal lined with the same mucous membrane, will, of course, also participate in such change, and frequently an increased and depraved secretion takes place, constituting leucorrhœa. In almost all, if not in every instance, this change depends upon constitutional causes, which must be attended to before any good can be done; and though local treatment is also frequently necessary, it is utterly useless if employed alone.

The most simple tyro knows that mucous membranes are easily irritated, and induced to increase and alter their secretions, under such circumstances, to a most inordinate amount, and would, therefore, studiously avoid employing any agent which could act in this manner. Astringents are applied to the tonsils when requisite, but no one ever heard of the application of potassa fusa; although in these days of advancing science this powerful caustic is, by some Practitioners, applied in almost every case to the os uteri. And how is it applied? The speculum is employed, and the vagina and external organs irritated, and the os cauterized with a substance which must keep up irritation for a considerable time afterwards; various other substances have been employed, but all on the same principle. The moral effect produced by the continued use of the speculum is too obvious to require notice; but, setting this aside, in the majority of cases it must rather tend to increase than to cure the malady for which it is employed. Leucorrhœa, then, is a symptom of some constitutional disturbance, and this leads us to the consideration of what this disturbance is, or, in other words, of the cause of the symptom. Now, to say that it depends upon any one cause, is absurd, quite as much so as to look upon the symptom as the disease; certainly the majority of cases occur from debilitating influences, those arising from the opposite state being, as a general rule, exceptions. Jewell, in his work upon "Leucorrhœa," considers that most cases originate in local excitement, but from this I differ; there must be a predisposing constitutional cause, at least in most instances; some few may arise from local irritation, but they are not so inveterate as others. The causes generally are both predisposing and exciting; and although the latter cannot always be traced out, the former are almost invariably present. The following case, depending upon local irritation, had, no doubt, a predisposing cause, inasmuch as the patient had previously suffered from a clear discharge:—

Mrs. B., aged 20, June 2, 1854. She has been married seven weeks, and was attacked, a week after marriage, with profuse purulent leucorrhœa, which still continues; she has suffered previously at different times from simple leucorrhœa. The catamenia have always been regular, and appeared a month ago. Bowels confined; tongue pale, but clean. On

the 5th, the catamenia came on, and she complained of much pain and swelling of the left labium; by the 9th, the catamenia had ceased, and on examination, a large lacunar abscess was apparent on the left side, which was opened with great relief. The treatment consisted of purgatives and salines at first, subsequently tonics and astringent injections, which quite stopped the discharge by the 16th of August. This case evidently depended upon rupture of the hymen and coition, which is far from an uncommon cause of lacunar abscess.

But, although Jewell states that "local excitement" is the most common cause, he says (p. 57), "a scrofulous diathesis, or an irritable and nervous habit of body, a deranged state of the menstrual function, frequent child-bearings or abortions, protracted lactation, etc.; suckling appears to have great influence over morbid vaginal discharges. I have known several instances in which a copious leucorrhœal evacuation has ceased upon the removal of the child from the breast." Surely these are debilitating causes, and should be classed rather as predisposing than exciting ones. I have before stated, that a predisposing cause almost always exists, and may generally be discovered, if carefully looked for; but we may go further than this. Numerous cases exist, in which the predisposing constitutional cause alone is present, and by no possibility can any local one be traced. The two following cases serve well to illustrate this:—

L. L., aged 19, single; December 12, 1853. There is a profuse, clear, leucorrhœal discharge of a year's standing, attended with pain in the lumbar region; catamenia regular and natural; pulse weak; tongue pale; countenance exsanguine; bowels regular. She suffers much from headache, which is relieved on assuming the recumbent posture. No local treatment was employed, but rest was enjoined, and tonics administered, and she was completely cured by January 9.

E. M., aged 17; single; October 3, 1853. Leucorrhœa of one year's standing; there is very little pain, but the discharge is clear and abundant; countenance exsanguine; lips blanched, externally and internally, as well as the gums; pulse exceedingly weak: catamenia regular; bowels generally confined. She is a servant, and greatly debilitated by excessive work. In neither of these cases was there any local cause; both depended upon constitutional debility, and constitutional treatment was alone required.

The predisposing causes are the first to be sought out, and, undoubtedly, the most common of all is debility, from whatever source it may arise. Jewell states, that "moisture and cold predispose to the complaint," and I perfectly agree with him; for, like most mucous discharges, it is of a catarrhal nature, and consequently influenced by change of temperature; in confirmation of which, Leake, in his "Medical Instructions," observes that, "in Holland fluor albus is frequent, and in a manner peculiar to the place, owing to the dampness of the situation. I have attended more women labouring under fluor albus in autumn than at any other season of the year, especially when the weather was extremely moist and cold." Morgagni describes it as being occasionally epidemic. I have never noticed this myself, though in certain conditions of the atmosphere such an event is likely to occur. Jewell also remarks that "women who enjoy the pure air of the country are not so obnoxious to the complaint as those who live in crowded and ill-ventilated houses in the metropolis." P. 59.

This is perfectly true, and, on the same principle, the frivolities of a London season, with the necessary accompaniments of close crowded rooms and theatres, aided and abetted by luxurious and stimulating living, combined with want of rest and fatigue, produce a similar effect. Constitutional causes of almost every kind, acting through both the nervous and circulating systems may give rise to it, for it must be borne in mind that the nervous system being intimately connected in all its parts, is entirely dependent upon, and therefore liable to be affected by, any change which may occur in the vascular system. The vascular system, being equally connected in all its parts, is in like manner dependent upon, and liable to be affected by, any change which may occur in the nervous system. A proper supply of healthy blood is necessary for the maintenance of nervous action, and a due supply of nervous influence is also requisite for the maintenance of the circulation of the blood. Now, although leucorrhœa may occur in plethoric constitutions occasionally, it shows itself much more frequently in those of an anæmic kind, in which state of system there is a marked diminution in the number of the red globules. These globules, as is well known, contain a compound of iron, having a strong affinity for oxygen, which gas is absorbed by them from the atmosphere in the lungs, passes to the heart, and is thence distributed to the whole body. In the systemic capillaries, the globules part with their oxygen, and acquire the power of combining with carbonic acid, during which process animal heat is evolved. The amount, then, of animal heat developed in the system must be very much regulated by the quantity of the red globules contained in the blood, and, as all changes in the nervous system occur where the fibres come into relation with the vascular plexus, it follows that this system must be more or less affected by an alteration in the quantity of the red globules. Where a diminution occurs, the force of the circulation is lessened, the heart does not receive blood containing a sufficient amount of oxygen to stimulate it to its proper healthy action, and the nervous system receiving a supply of blood insufficient in quantity and of impure quality, has its power materially diminished, and, in this way, affects the whole circulating system secondarily, being incapable of affording that due amount of nervous influence which is requisite for the maintenance of the healthy circulation. There are three causes, then, tending to keep up the weakened condition of the circulation: first, the improper quality of the blood, from the deficiency in the amount of the red globules; secondly, the enfeebled force of the heart's action; and, thirdly, the diminished power of the nervous system.

Now, whether the leucorrhœal discharge occurs in a plethoric or anæmic constitution, a state of anæmia is sure to be eventually produced and perpetuated by the constant drain upon the system. A predisposing constitutional cause already existing, a very slight local one is sufficient to produce the discharge, as, for instance, disordered menstruation, diarrhœa, irritation about the rectum, as from ascarides, scybala, etc., and many others; but though the removal of the local cause is necessary, no permanent good can be gained until the general state of health is properly re-established. Sudden emotions of the mind will not unfrequently produce it, proving that the uterus has a system of nerves, for it is well known that strong nervous sympathy exists between the uterus and other abdominal viscera, which is not confined to these only, but extended to every part of the body, by means of the intimate connexion maintained between the sympathetic and cerebro-spinal system of nerves. The dissections of Dr. Robert Lee have clearly and indubitably proved that the uterus is supplied by a large system of nerves, consisting of ganglia and plexuses, which, as well as the bloodvessels and absorbents, enlarge with the gravid uterus during pregnancy, and return to their original condition after parturition has taken place. In Dr. Lee's own words, "It is chiefly by the influence of these nerves that the uterus performs the varied functions of menstruation, conception, and parturition, and it is solely by their means that the whole fabric of the nervous system sympathizes with the different morbid affections of the uterus. If these nerves of the uterus could not be demonstrated, its physiology and pathology would be completely inexplicable." It is certain that, through this system, that sympathy exists between near as well as distant parts, which gives rise to so many symptoms not to be accounted for in any other manner. The following case is a very good illustration of what has just been stated, serving also to show the sympathy which exists between the mental and bodily functions:—

R. C., aged 22, single, November 23, 1853. She has suffered from leucorrhœa since the age of 14, when the catamenia first appeared. The leucorrhœal discharge is excessive, but clear; catamenia copious and attended with much pain, lasting for eight days. She suffers from hysteria of an aggravated form, accompanied with great fear and alarming thoughts of a religious nature. Pulse weak, tongue clean, bowels very irregular, sometimes relaxed, at others confined. The general plan of treatment consisted in giving tonics and antispasmodics, with astringent injections. Under this the leucorrhœa entirely ceased, but the hysteria remained. This, however, stopped somewhat suddenly; and, after giving myself great credit for the remedies I had employed, she told me, when I pronounced her well, on April 19, 1854, that she had been married nearly three months, and was *enceinte*. This mental affection just alluded to occurs in hysterical patients suffering from anæmia; it does not amount to insanity, but is

far from being remotely allied to it—in fact, it is somewhat similar to the state which would be termed, in the insane, religious monomania attended with fear. The patient is attacked in fits and starts, not continually, by a feeling of dread connected with religious matters; she fancies that she has either done some act, or omitted some act, for which she deserves punishment; and a fearful remorse of conscience suddenly falls upon her, at once damping her spirits and throwing her into the most miserable state of depression. The cause, however, is not originally mental, but depends, as all these cases do, upon derangement of the whole system; it is not so much to be wondered at that the body should act upon the mind in this manner, when we consider the rapidity with which the mind acts upon the body; how frequently do we meet with profuse leucorrhœa or menstruation itself brought on almost instantaneously by some sudden distressing emotion of the mind!

Gardien mentions three forms of leucorrhœa: 1st. Leucorrhœa from irritation; 2nd. Constitutional or adynamic; 3rd. Metastatic. These distinctions are very objectionable, inasmuch as leucorrhœa, being only a symptom, must always depend upon a constitutional cause, and therefore the first and third forms are merely modifications of the second. Dr. Meade evidently looked upon it as a symptom depending upon a constitutional cause—"Fœdus morbus est tetra ista colluvies quæ (colore albo) ex fœminarum naturalibus interdum profluit. Hunc autem humorem modò profundunt canales uterini; modò ex glandulis quibus consita est vagina erumpit. In utrâque mali specie, corporis habitus præcipue habenda est ratio; ab illius enim vitio tam hic quam iste morbus originem trahit. Ubi, autem, in ipsâ vaginâ sedem fixit, externa etiam opus sunt." "Monitus et Præcepta." Cap. XIX. sect. 3. Denman also observes that "it is generally a symptom of some local disease, or a consequence of great debility of the constitution; though, when profuse, it becomes a cause of yet greater weakness;" at once showing that he simply looked upon it as a symptom.

Mrs. R., aged 21, November 14, 1853. Leucorrhœa of six years' standing, attended with much bearing down, and pain in the back; discharge copious, but generally clear, and has increased during the last three years, having commenced with the appearance of the catamenia. She has been married six months, but this has produced no difference in the leucorrhœal discharge. Six months back, coeval with marriage, the tonsils began to enlarge, and have now attained a considerable size, the right one being the largest. The catamenia have always occurred regularly, but are and have been exceedingly scanty. Pulse weak; tongue pale; bowels regular. Tonics and astringent injections were employed for the leucorrhœa, and the tonsils were touched with nitrate of silver from time to time, alum gargle being used in the intervals. By the 13th of January, 1854, the leucorrhœa had entirely ceased, and her general health greatly improved. I now removed the enlarged tonsils, and she was perfectly well by the 27th.

We have here an instance of enlarged tonsils coming on during an attack of leucorrhœa, both affections arising from a cachectic state of system. It would have been useless to have removed the tonsils until the general health was improved, but this end having been gained, they were excised on account of their size, and the great inconvenience they produced. These two affections, in spite of my previous remarks, are not by any means necessarily connected, though it has fallen to my lot to meet with several cases in which they have occurred together.

Mrs. W., aged 23, June 1, 1853.—Has suffered much from pain in the back, with bearing down, for several years, and has had leucorrhœa almost incessantly during this time. She has been married three years, and has never been pregnant; at present she is not living with her husband. The catamenia have been tolerably regular, but attended with pain. The leucorrhœal discharge, though clear, has become very profuse for the last three months; the os uteri is puffy, the vagina lax, and extremely sensitive, an examination giving much pain. She suffers much from dyspepsia, and acidity of stomach, and there is a copious deposit of lithic acid in the urine. Pulse weak, tongue pale, bowels regular. Six leeches were applied to the groins, and salines, with mild purgatives, were given internally. Under this plan of treatment all symptoms of local congestion disappeared. She was then put under a course of light bitters and alkalies, with an astringent injection, and was quite well by the 5th of August.

The necessity of taking into consideration the state of the ordinary secretions, as, for instance, increased acidity of the stomach, marked by acid eructations and lithic acid in the urine, is here shown. I have certainly never seen much, if any, good derived from giving mineral acids in such cases, until the depraved secretions are corrected; and frequently patients, who have this kind of system, are unable to take acids at any time. In this case local congestion existed, but, although a mild antiphlogistic plan of treatment was at first necessary, tonics were subsequently requisite.

F. F., aged 24; single; June 15, 1853; with leucorrhœa of one year's standing. The discharge is at present purulent, and has been so for three months, and there is great scalding on making water. An examination showed the hymen to be perfect, and there was no appearance of inflammation, no tenderness, swelling, or great amount of vascularity of the parts. Catamenia regular, but painful; pulse weak; tongue pale. In this case a few leeches were applied to the groins at first, and tonics, with occasional mild purgatives, were administered internally, but no injections were employed, and she was cured by August 8. I saw her again in January, 1855, when she told me that she had not had any return, and was then married, and three months advanced in pregnancy.

In this case the difference between purulent leucorrhœa and gonorrhœa is well marked; as far as symptoms are concerned they are very much alike, but the main point in which they differ is with regard to the necessary plan of treatment. In this case no astringent injection was required, six leeches being the only local remedy employed, and she recovered completely under constitutional treatment. Local treatment is essentially necessary in gonorrhœa occurring in the female; and, unless there is an unusual amount of inflammation, I believe that constitutional treatment is utterly useless. The question then arises, as to whether purulent leucorrhœa can produce a similar discharge from the male urethra. I am disposed to think that it can; and the following case, which occurred in a friend of my own, concerning whose morality, as well as that of his wife, there could be no question, goes far to prove this fact. He had been lately married, and consulted me about some small warts, which had grown round the corona glandis; in a short time these disappeared spontaneously, without any treatment. On looking more minutely into matters, it appeared that his wife suffered severely from dysmenorrhœa, and had a most acrid leucorrhœal discharge. The irritation of this discharge had, no doubt, in the first instance produced the warts, and this cause still continuing, the irritation probably increased to a sufficient extent to cause them to slough off. Some time after this, he was affected with a muco-purulent discharge from the urethra, accompanied with much scalding on making water. His wife was now suffering from profuse purulent leucorrhœa. Temporary abstinence from intercourse, and constitutional treatment, cured them both without any local means at all.

Jewell (p. 53) in speaking of acrid purulent discharges, says:—"This is a state of the disease which, occurring in a married woman, may prove exceedingly unpleasant in its consequences to the husband, if intercourse be continued. I was requested to see a gentleman who supposed himself labouring under gonorrhœa, which he insisted must have been contracted from the seat of a privy. There were excoriations about the corona glandis, attended by a white secretion. After a minute inquiry into all the circumstances, the case was discovered to be of leucorrhœal origin, his lady having, at the time, an acrid vaginal discharge." And, again, we find that (p. 103):—"A purulent discharge takes place from the urethra of the male, in consequence of leucorrhœa in the female, or, indeed, independently of sexual intercourse, cannot any longer be doubted, but it must be admitted that these occurrences are very rare; besides, in cases of specific contagion, the disease almost invariably assumes the same character, which it does not when having a leucorrhœal origin." "It sometimes happens, where the discharge is acrimonious, that it not only excoriates the patient herself, but may act upon her intimates; and, where there has been irregularity on the part of the husband, he may fancy that he has chancre, and that he has affected his mate. A husband once called upon me, and told me his suspicions on this subject, though the subsequent progress of the disease, and the cure without mercury, clearly demonstrated the mistake." — Blundell's "Obstetric Medicine." P. 838.

(To be continued.)

THE SIMPLEST OPERATION FOR UNCOMPLICATED, CONGENITAL PHYMOSIS.

By T. FURNEAUX JORDAN, Esq., M.R.C.S.

Not only are Surgical authorities of opinion that circumcision is rarely, if ever, necessary; but those truly frightful slits, extending half-way up the penis, to be seen in the pretty engravings which adorn some (of our best, too) Surgical manuals are fast getting into chirurgical disfavour. The present mania, however, of attributing uncomplicated, congenital phymosis in every case to the unfortunate mucous lining of the prepuce alone, and the practice of heroically slitting up the same to the very point of its reflexion from the penis, has arisen rather from the hypothesis of theorists than from the enlightened experience of acute observers.

The non-dilatability of the congenitally phymosed prepuce is confined to the margin of the preputial orifice and to the skin and mucous membrane in its immediate vicinity; such non-dilatability undoubtedly extending to a greater distance on the inner than on the outer aspect of the foreskin.

The received opinion, touching the non-elasticity of the preputial lining in its entire extent, is so far from being correct, that ordinarily such lining, for some distance anterior to its point of reflexion, is arranged in rugous folds, like all other mucous membranes that are too large for the organ they line, save when the peculiar function of that organ is being exercised.

The opinion that the skin is not implicated in phymosed stricture, is equally incorrect. In one patient, on whom I operated with complete success, by far the tightest portion of the prepuce, after recovery from the operation, was the skin for two lines behind the cicatrices.

From the above remarks, it will be inferred that any incisions, which extend further than the parts forming the margin of the prepuce, and for a short additional distance on the mucous surface, are unnecessary, and hence cruel. A single incision, however, as described, would fail to secure the retraction of the prepuce, not because the incision is too limited, but because a single incision cannot possibly relieve the whole circumference of the congenitally-contracted, preputial orifice; two, however, or at most three, of the small incisions in question would afford complete relief.

The mode of operating which I have adopted, and with signal success in its results, is this :—Having first induced local anæsthesia, by applying pounded ice to the penis for two minutes, I introduce one blade of a pair of scissors (blunt-pointed, yet cutting to the end) to the distance of $\frac{1}{4}$ of an inch, between the glans penis and the prepuce, on one side of the penis, at a point midway between the frenum posteriorly, and the mesial line anteriorly. Both layers of the prepuce being divided to the extent mentioned, a similar incision is made at a similar point on the other side of the penis. The prepuce is now retracted to the extent allowed by the incisions, which (r by this proceeding are brought quite external, enclosing between their lips an uncut layer of lining membrane. This is divided on each side, by introducing one blade of the scissors, to the extent of, and immediately under, the original wound. The entire prepuce may then be retracted, a piece of wet lint wrapped round the penis, and the whole supported by a proper suspensory bandage. The patient need not lie in bed. Where three incisions seem preferable they should be equidistant from each other, the third being at the mesial point anteriorly, the two lateral incisions should be a little nearer the frenum, than when two only are made.

The incisions may of course vary a line or two, one way or the other in extent, according as the constriction is more or less aggravated.

The recapitulatory points to which I would draw attention, are :—

1. That the skin is more, and
2. That the mucous membrane is less, involved, than is generally supposed.
3 That two, or at most three, comparatively small incisions will afford complete relief.
4. That no assistant is required, and
5. No instrument save a pair of scissors.
6. Two or three small incisions cause much less irritation, and heal much more quickly than one large one.
7. That the patient need not lie in bed.

Leamington.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING DECEMBER.

(Concluded from page 91.)

The subjoined report includes, as usual, the following Hospitals :—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

EXCISION OF BONES AND JOINTS. (*Additional.*)

Case 2.—A middle-aged woman, in good health, under the care of Mr. Johnson, in St. George's, on account of diseased os calcis. The posterior half of the bone was excised, an abscess having been found within it. Doing well.

OPERATIONS FOR CARIES OF BONE.

Case 1.—A boy, aged 7, under the care of Mr. Athol Johnson in the Hospital for Sick Children, on account of caries in the head of the tibia, the knee-joint not being affected. A portion of bone was removed by the trephine, and the adjacent parts gouged out. Doing well. *Case* 2.—A girl, aged 14, in good health, under Mr. Cock's care in Guy's, on account of caries, with necrosis in the head of the right tibia. The cavity was opened with the gouge, and a fragment as large as the last joint of the thumb removed, together with the surrounding softened bone. The excavation made was large, and extended upwards until close beneath the articular cartilage. The disease had existed for ten months previously, and there was great enlargement of the bone. Since the operation all has done most favourably, and the swelling about the joint is fast subsiding.

OPERATIONS FOR NECROSED BONE.

Sixteen operations of this class have been performed during the month, some of them involving the removal of very large sequestra. None of the cases have done otherwise than favourably.

TREPHINING FOR ABSCESS IN THE BONE.

A young woman with the appearance of good health, was admitted, under the care of Mr. Hawkins, into St. George's, having for two years suffered severe pain in the head of the tibia. The pain had had occasional intermissions. The bone was considerably thickened. Mr. Hawkins exposed the surface of the bone, and used the trephine, by which an abscess of considerable size was opened. The case is doing well.

EXCISION OF MALIGNANT TUMOURS.

Case 1.—A man, aged 42, under the care of Mr. Lane, in St. Mary's, on account of an open cancerous ulcer in the tongue. The disease had existed six months, and there were no glandular enlargements. The affected part was excised. Pretty sharp hæmorrhage occurred afterwards, but was kept down by the continued sucking of ice. Death followed three weeks after the operation, with all the symptoms of pyæmia. At the autopsy, secondary deposits of pus were found in the joints and also in the lungs. *Case* 2.—A man, aged 45, under the care of Mr. Fergusson in King's College, on account of cancer of the lip. Excision. Recovery. *Case* 3.—A man aged 46, under Mr. Callaway's care, in Guy's. Some months ago a very large growth of medullary cancer was removed from the axilla, which appeared to have been secondary on a small growth, which had formed in a congenital mole on the forearm. On the present occasion, the primary growth, which had since the first operation increased in size, was excised. The wound soon healed. *Case* 4.—A man aged 44, under Mr. Cock's care, in Guy's, on account of cancer of the lip. Excision. Recovery. *Case* 5.—A woman, aged 56, under Mr. Simon's care, in St. Thomas's, on account of epithelial cancer of the labium. The whole labium was removed. Recovered. *Case* 6.—A man, aged 35, a chimney-sweeper, under the care of Mr. Skey, in St. Bartholomew's. A few months ago, a small

primary epithelial cancer had been excised from his scrotum, and he now came under treatment, on account of a large and very painful glandular tumour in the groin. In the attempt to dissect it out, the femoral vein was exposed, and it was found impracticable to remove the whole. The wound has since done well.

EXCISION OF THE BREAST.

Case 1.—A woman, aged 45, under the care of Mr. Moore in the Middlesex, on account of scirrhus of the breast, of two years' duration. Excision of the entire gland. Slight attack of erysipelas. Recovery. *Case* 2.—A woman, a creole, aged 30, under the care of Mr. Moore, in the Middlesex Hospital, on account of a tumour in the breast which had existed for a year. Excision of the whole gland. The growth proved to be a good example of colloid cancer. Recovered. *Case* 3. —A woman, in good health, aged 42, under Mr. Hawkins's care in St. George's, on account of scirrhous cancer of the breast. Excision. Recovery. *Case* 4.—A woman, in good health, aged 55, under the care of Mr. Tatum, in St. George's, on account of scirrhus of the breast. Excision. Under treatment. *Case* 5.—A woman, aged 46, under Mr. Lawrence's care, in St. Bartholomew's, on account of what was believed to be a suppurated cancer of the breast. The induration was very great, and had been in progressive increase for nineteen months or more. The mother of the patient had died of cancer. The ulcerations in the skin did not extend any depth. The entire breast was excised. After removal, the disease was found to be merely chronic induration of the gland. There were hard oleaginous concretions in the lacteal tubes, and a circumscribed collection of matter behind the breast. Recovered. *Case* 6. — A healthy married woman, aged 62, under the care of Mr. Birkett, in Guy's, on account of an ulcerated scirrhous tumour in the right breast. The disease had existed for a year, and had been ulcerated for about a month. There was an enlarged gland in the axilla. The entire breast and the axillary gland also were removed. The patient made most favourable progress for several days, when acute bronchitis supervened, from which she died on the nineteenth day after the operation. The wound was quite healthy, and nearly healed. Not a trace of carcinoma was, at the autopsy, found in any organ or part of the body. *Case* 7.—A healthy woman, aged 60, under the care of Mr. Coulson, in St. Mary's, on account of scirrhus of the breast. It had only been painful for three weeks, and had not been noticed previously, but had most probably existed for a long period. Excision of entire gland. For some time after the operation she remained much exhausted, but has more recently been doing well. *Case* 8.—A woman, aged 47, under the care of Mr. Fergusson, in King's College, on account of scirrhous cancer of the breast. Excision of the whole gland. Recovery. *Case* 9.—A woman, aged 35, under Mr. Fergusson's care, in King's College, on account of scirrhus of the breast. Excision. Under treatment.

REMOVAL OF NON-MALIGNANT TUMOURS.

Cases 1, 2, 3, and 4.—Encysted tumours of considerable size, excised from various parts. In all the cases the wounds healed well. *Cases* 5, 6, and 7.—Fatty tumours excised from different parts. In all, the wounds healed quickly. *Case* 8. —A healthy woman, aged 34, under Mr. Birkett's care, in Guy's, on account of a small fatty tumour on the anterior edge of the right axilla. Congelation of the skin by ice and salt was practised, the process occupying seven or eight minutes. The wound afterwards sloughed, and the cuticle peeled off around it. Mr. Birkett's remarks are, "It was impossible to witness a case less favourable to the employment of cold than this. The wound which, under ordinary circumstances, should have been well in a week, occupied five in healing." *Case* 9.—A patient, under Mr. Birkett's care, in Guy's, on account of a fatty tumour over the back. Congelation was employed, and occupied only a few minutes. "The wound healed quite as slowly as in the case just mentioned, but there was not the same amount of sloughing. It ought to have healed in two or three days." *Case* 10.—A woman under Mr. Birkett's care, in Guy's, whose case was mentioned in our September Report, a fibroid tumour having been excised from the leg. The growth had recurred beneath the cicatrix, and a second excision was required. It was found impracticable to remove the whole, as it infiltrated the muscle, and passed deeply. The wound has since been gangrenous, and the patient is yet very ill. *Case* 11.—A girl, aged 18, under Mr. Lane's care, in St. Mary's, on account of an almost solid bursa over the patella. Excision. Recovery. *Case* 12.—A woman, aged 28, under Mr. Lawrence's care, in St. Bartholomew's, on account of an encysted tumour, of two years' duration, in the lower part of the right mammary gland, just below the nipple. An incision was made over it, and the cyst, which was becoming solid, was dissected out. Recovery. *Case* 13.—A healthy woman, aged 28, under Mr. Lawrence's care, in St. Bartholomew's, on account of a very large mammary glandular tumour, situated behind and below the right breast. It was quite loose, and slipped out easily. Its existence had been recognized for nearly two years. Slight erysipelas affected the wound a few days after the operation, and death from pleurisy followed on the nineteenth day. No autopsy. *Case* 14.—A pale, cachectic man, aged 52, under the care of Mr. Hutchinson, in the Metropolitan Free, on account of what was believed to be carcinomatous enlargement of the axillary lymphatics. The tumour was excised, but proved not to be cancer. The wound is now healing, and the patient in much improved health. (See Report of the Pathological Society, page 73.) *Case* 15. —A woman, aged 55, under the care of Mr. Hawkins, in St. George's, on account of a recurrent fibro-cystic tumour, originating in the mammary gland, and since reappearing beneath the cicatrix. Four previous excisions had been practised. Her health remains good. Under treatment. *Case* 16.—A married but childless woman, aged 23, under the care of Mr. Lloyd, in St. Bartholomew's, on account of a mammary glandular tumour, the size of a walnut, in the left breast. Excision. Recovery. *Case* 17.—A healthy girl, aged 14, under the care of Mr. Lloyd, in St. Bartholomew's, on account of a tumour, the size of a cricket-ball, over the inner side of the lower part of the femur. It had commenced two years ago, and for six months past had been increasing rapidly, and had occasioned pain. In the operation it was found to dip deeply between the muscles of the thigh, the sartorius playing over it. On section, it presented a homogeneous white surface, and was considered a good example of albuminous sarcoma. The wound healed well.

REMOVAL OF EXOSTOSIS.

A healthy man, aged 21, under the care of Mr. Lawrence, in St. Bartholomew's, on account of a small exostosis growing from the inner side of the femur, a little above the condyle. A small bursa was placed over it. Excision. Some burrowing of matter in the thigh followed, but the wound is now healing.

TRACHEOTOMY.

Case 1.—A male child, aged 2½ years, was admitted into Guy's, under Mr. Birkett's care, having scalded his throat by attempting to swallow hot water. Suffocation was impending at the time of admission, seven hours after the accident. The child had previously been healthy, but was only just recovering from hooping-cough. Mr. Birkett performed tracheotomy, using a hook and scalpel, and then introducing the cannula by means of a blunt-pointed or pilot trocar. The tube was retained three days. The child recovered without drawback, excepting that the hooping-cough relapsed, and some paroxysms of cough so severe as to threaten suffocation occurred. He left the Hospital quite well, the wound being soundly healed, in about three weeks. *Case* 2.—A child, aged 3 years, was admitted into St. Bartholomew's, having attempted to swallow boiling water from a kettle. The pharynx, tongue, and glottis were extensively scalded, and there was great dyspnœa at the time of admission. Soon afterwards symptoms of impending suffocation were developed, and it was evident, that to save life, the trachea must be opened immediately. The operation was performed by Mr. Furnivall (House-Surgeon). On account of cough, it was found difficult to introduce a cannula, although the opening was quite large enough to have admitted one; the wound was accordingly held open by retractors, connected behind the neck by an elastic band. The child was relieved by the operation, and soon fell asleep. The breathing continued tranquil until noon the next day, sixteen hours after the operation, when acute bronchitis set in. Death occurred about twenty-four hours after the operation. The autopsy showed great œdema of the mucous and submucous tissues about the glottis, much thickening of the epiglottis, and a scalded condition of the pharynx and tongue. The right lung was adherent by pleuritic bands, and its lower

lobe was hepatized. The lining membrane of the trachea was inflamed, and the bronchial tubes contained much muco-purulent secretion.

OPERATIONS FOR NÆVUS.

Operations of this class have been performed in three cases,—in one by excision, one by injection of perchloride of iron, and one by setons. The first has recovered, the latter two remain under care.

OPERATIONS FOR IMPERFORATE RECTUM.

Case 1.—A child, aged 5 months, has been for the last four months under the care of Mr. Henry at the Middlesex, on account of imperforate bowel, with communication between the rectum and vagina. There was no trace of an anus. The operation performed consisted in opening the track of the bowel, and uniting the edges of the mucous membrane to those of the wound. It has been but partially successful, on account of the difficulty found in keeping the wound open. The fæces still pass by the vagina. *Case* 2.—A child, aged 4 days, was operated on by Mr. Erichsen, in University College, on account of imperforate rectum. The anus was well formed, but about an inch above it a thick, fleshy septum closed the bowel. A trocar and cannula were passed through this, and the latter left in. Meconium escaped, but the infant sank under constitutional irritation, and died four days afterwards.

PLASTIC OPERATIONS.

Case 1.—A boy, aged 13, under Mr. Bowman's care, in King's College, on account of ectropium of the upper lid, following a burn. A very good result was obtained. *Cases* 2, 3, 4, 5, and 6.—In these cases the usual operation was performed successfully for the cure of hare-lip. *Case* 7.—A woman, aged 70, under Mr. Baker Brown's care, in St. Mary's, on account of ruptured perinæum. The usual operation was performed. The result was unsuccessful.

THORACENTESIS.

A lad, aged 16, is under the care of Dr. Stewart, in the Middlesex, on whom the operation of puncture of the chest has been performed by Mr. Moore. About eight ounces and a-half of well-formed pus were drawn off. Under care.

PUNCTURE OF THE BLADDER.

The case in which the bladder was punctured last month by Mr. Thompson, in the Marylebone, remains under care, and is, as far as the urinary apparatus is concerned, doing well. He has suffered from dysentery.

Case 1.—A man aged 33, in good health, was admitted into St. Bartholomew's, having four days before been attacked, without assignable cause, with retention of urine. No instrument could be introduced, as there was a false passage about three inches from the meatus, which it was found impossible to avoid. Although the bladder was greatly distended, yet as some dribbling was taking place, and as the history did not point to impermeable stricture, Mr. Skey determined to give the opiate treatment a fair trial, before resorting to puncture of the bladder. This was done, but after two days' delay no benefit having been obtained, and the man's condition having become urgent, a trocar was introduced by the rectum into the bladder, and the urine evacuated. The cannula remained in more than a fortnight, and the man has done remarkably well.

OPENING OF THE URETHRA FOR STRICTURE.

A man, aged 55, in tolerable health, was admitted under the care of Mr. Cock, into Guy's, on account of stricture and perineal fistulæ. He had suffered from stricture for upwards of twenty years. In 1848 Mr. Cock saw him in private, on account of most extensive extravasation of urine. Free incisions were practised; but, notwithstanding them, the whole perinæum sloughed, including a length of two inches and a half of the urethra. During the healing process catheters were retained, and at length a cicatrix formed, by which a very superficial new canal was constituted. There remained ever after a hollow in the perinæum, and the newly-formed urethra passed immediately beneath the scar. The regular use of instruments was ever afterwards necessary. In 1853 the man was admitted into Guy's, under Mr. Poland's care, on account of retention, for which incisions into the urethra were necessary; the stricture being impermeable. On that occasion pneumonia followed the operation, and all but proved fatal. When admitted, last month, under Mr. Cock, the stricture was still impassable, and there were about twenty fistulous openings in various parts of the perinæum, scrotum, and around the anus. The operation performed consisted in opening the urethra just behind its diseased part, and in front of the prostate; the intention being to secure a direct channel of escape for the urine. The man has done well since. He is now up and about the ward. Many of the fistulæ are closing, and the urine escapes freely by the opening made.

INCISIONS FOR EXTRAVASATION OF URINE.

A man, aged 45, was brought into the Marylebone, under Mr. Thompson's care, suffering from the extravasation of urine consequent on old and neglected stricture. The scrotum, perinæum, and penis were enormously swollen, and there were large sloughing patches. The swelling extended above the iliac crest on the right side, and to its anterior-superior spine of the left. The bladder was felt through the rectum to be much distended. Free incisions were at once made in all the swollen parts, and on a following day a yet deeper one was required in the middle line of the perinæum, and had the effect of procuring the escape of urine in a powerful stream. With liberal support in the way of dietetic stimuli, the man struggled through, but it was only after the whole integuments of the penis, and a large portion of that from other parts, had sloughed away. He will now soon be well enough to be subjected to regular treatment for his stricture.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 82.—Eau Sedative.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Will you kindly ask your readers to favour me with the composition of a French preparation called the "*eau sédative?*" A patient of mine, who has lately been under treatment at Paris and Boulogne, found much relief from it. It is for external application. I am, etc.

January, 1856. T. E. A.

No. 83.—Iodide of Potassium as a test for Ozone.

Sir,—In the *Medical Times and Gazette* of January 6, 1856, mention is made that Iodide of Potassium is a test for Ozone, and that paper prepared with starch and the Iodide was used for that purpose. I shall feel obliged if any of your readers who have prepared the paper, will instruct me through the medium of *Notes and Queries* with the method of preparation. I am, etc. R. Bateman.

31, Bayham-terrace, Jan. 17, 1856.

No. 84.—Slippery Elm Tree Bark.

Sir,—Can you give me the scientific name of the above bark, which is much used by our transatlantic brethren as a demulcent; and can you inform me if it is used in this country? I am, etc. L.

London, Jan. 15, 1856.

No. 85.—Properties of various kinds of Starch.

Sir,—What is the real difference between the various kinds of starch in their physiological and dietetic properties?

We are told that arrowroot and potato starch, for example, have the same chemical composition. Is it proved that there is any difference in them as articles of diet?

I speak not of microscopical difference, nor yet as to whether one may be more palatable than another. But, setting aside the fact that one has a better reputation than the other, that one comes from a greater distance, and costs more money, is there any proved difference between them as articles of diet, supposing such to be good of its kind?

I am aware that large quantities of starch have been made of diseased potatoes, but I do not include this. I would ask, supposing each to be made from good healthy sources, is there any marked difference between them?

North Hants, Dec. 31, 1855. I am, etc. H. S. A.

No. 86.—Lime as a Supposed Disinfectant.

Sir,—We heard, during the cholera panic, of orders from the Board of Health to cover churchyards, or portions of them,

with quicklime. Was this intended as a sop to popular prejudice, or as a really beneficial agent?

Quicklime applied to organic matters, it is well known, hastens their decomposition, and modifies it. Thus, for example, in using human excrement and other strong manures, the crops that result are liable to grow exceedingly rank, and the cattle refuse to eat of them, unless lime be plentifully applied at the same time; if this be done the green herbage is eagerly devoured. We may be sure that cattle are good, natural dieticians; *Deus est anima brutorum*, and if they refuse one thing, and greedily choose another, we may be sure it is for valid reasons, and therefore that lime does modify the results of decomposition in the manure applied.

But the strewing lime on a surface is a very different thing. Is it used to decompose gases, or to absorb, or oxydate them? If so; would not brick and mortar rubbish or charcoal, or burnt clay be better? Or is there any special action of lime, *per se*, on noxious gases?

I should like to be better informed on this matter, and should be glad to be enlightened by any of the Sanitary Directors of the Metropolis; because, although it is very well to talk about covering a churchyard with quicklime, yet it is a useless expense if other substances will do as well; *and the men who do it may possibily lose their eyes.*

I am, etc. E Periculo Tutus.

No. 87.—Ovaritis and Hysteria.

Sir,—Can any of your more experienced contributors tell me anything about the diagnosis of hysteria with tenderness in one iliac fossa, from subacute or chronic ovaritis? Is the ovary always to be felt from the rectum? I cannot feel it; but then there is great tenderness and pain, too much pain I should say, in the left iliac fossa. If nervous pain creates hyperæmia, is it unphilosophical to relieve the effect, though it may not touch the cause? I am, etc. Tyro.

Manchester, January 27, 1856.

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Medical Times & Gazette.

SATURDAY, FEBRUARY 2.

THE "TIMES" AND THE ROYAL COLLEGE OF SURGEONS.

The Medical world was startled a few days since by the appearance of a bitter philippic by the *Times* against the Royal College of Surgeons. The grievance which brought down the thunder of our daily contemporary was the alleged attempt on the part of the authorities at the College to reduce the salary of Professor Owen as Curator of the Museum; and it was stated, though we know not on what reliable authority, that the motion to curtail Mr. Owen's income was abandoned only when notice was given of another motion to dispense with the Council dinners.

It might, perhaps, be imagined by those who read the leading article to which we refer, that some recent proceedings on the part of the College had opened up the question as regards Mr. Owen and the Council, and that the appeal in the *Times* had been made in order to avert the threatened diminution of the Curator's income; but we have reason for believing, that if such an attempt were ever made, it has certainly not been made recently, nor is there any present design to carry it into execution. Professor Owen's income is, therefore, for the present, perfectly safe.

But the *Times* takes advantage of the opportunity thus afforded for drawing attention to the constitution of the Court of Examiners of the College of Surgeons, and we are bound to confess here that its remarks are perfectly true, and that its strictures are perfectly just.

"If," says the *Times*, "the College finds it necessary to retrench, Professor Owen's salary (£500) is the last which ought to be touched. There are ten Examiners, who receive about the same sum each, and whose salaries might far more easily be reduced; for, while their duties as Examiners occupy but a small portion of their time, they themselves, from their position as the principal Surgeons of London, are very amply remunerated by their Professional income. Their duties are, indeed, comparatively light; the examination which they have to superintend being simply a 'pass,'—that is, testing whether the candidates for diplomas have a certain *minimum* of proficiency, and not a competitive one,—that is, testing the relative merits of candidates. . . . The Court of Examiners, as the most influential portion of the College Council, have it all their own way, elect themselves as Examiners, determine their own gains, invite themselves every six weeks to dinner, and, when the funds run short, propose to fine everybody but themselves."

The last touch of the above quotation is very happy, and is worthy of Dickens. Verily, the ten Examiners of the College form a perfect picture of a happy family, or, if they are not so, with £5000 a-year to divide among themselves, and with good dinners at the College expense every six weeks into the bargain, then we do not know wherein the real elements of human happiness consist.

It is right to add that Mr. Lawrence, in his official capacity as President of the College, has published in the *Times* a letter, wherein he explains most satisfactorily that no injustice was ever committed or contemplated against Mr. Owen, and that the story about the motion to retrench the College dinners was a pure invention. In the latter part of his letter, Mr. Lawrence takes up the cudgels in behalf of the Court of Examiners, of which he is a most distinguished member; but in this part of his communication, many persons will think that he has not been particularly felicitous.

LIFE ASSURANCE AND MURDER.

We hear of a case in which murder is alleged to have been committed, for the sake of the money for which the life of the deceased person was insured. We refer to the Monaghan case at Manchester, the details of which are not yet in a sufficiently forward state for publication. Let us allude, in passing, to the great difficulty which has been experienced in finding the body of the deceased for Medico-legal examination. This difficulty was pointed out years ago by Mr. Chadwick, as a thing inseparable from the slovenly way of huddling many bodies into one pit, which was then the prevalent mode of cheap burial, and is not yet apparently quite abolished. Separate graves are essential, not only for decency and to ensure the due decomposition of the remains, but in case the grave be required to give up its ghastly contents for inspection and analysis.

We have heard it said, that the discovery of the Rugeley cases—cases which we must bear in mind are as yet only suspected, and not proved—will cast a slur upon Life Assurance; or will render necessary the intervention of the Legislature to impose restrictions upon assurances, and to render them less capable of being abused. But we believe that a little reflection will show that there is ground neither for alarm nor for interference. In this free country, Life Assurance, like all other branches of business, will flourish most healthily, and with least abuse, when left to develope itself unrestrictedly according to the wants of the community; and we also believe, that it requires no other safeguard than the exercise of due precaution and discretion on the part of the Offices, who, of course, are the prime sufferers in case of fraud. One bad case of poisoning thrills the whole public mind with horror, although this, if proved, falls far short of what is well known of child-murder for the sake of burial fees. But it must be recollected, that incendiary fires of well-insured houses are not unknown in the catalogue of crimes, nor are they always so well managed as to avoid loss of life. Yet, Fire Assurance needs no new legislation. Moreover, it is said that the owners of ships are not always overwhelmed with grief if the said ships founder, crews and all, provided they are insured. Yet nobody would shut up Lloyd's. The common-sense view of the matter is, *caveat underwriter*. The party who would suffer in case of fraud must keep a sharp look-out to protect himself. Honesty and precaution on the part of the Life Offices are the best safeguards for the public.

The one point in which danger is incurred at present, is the excessive eagerness of the Offices to obtain business. Life Assurance is much on the increase with the public; but the number of Offices eager to do business is still more on the increase. Competition is more than ever furious, and the number of devices resorted to is extraordinary. For instance: a demure-looking gentleman, in a white tie, visits a circle of country towns, and announces at each a Lecture on the Use and Abuse of Tobacco; or an Address on behalf of a District Branch Auxiliary Temperance Association. Whilst urging on his audience the duties and advantages of frugality, temperance, and so forth, he tells them incidentally that one-half of the money smoked away in a tobacco-pipe, or squandered in transitory creature-comforts, would, if invested in the Trumpeter Life Assurance Association, enable them to provide handsomely for widows and children. Of course there is in the town one of the same choice fraternity who officiates as agent. To speak of almanacs, placards, pamphlets, and advertisements is superfluous.

Then, the agents employed to obtain assurances are not always of the first water; in fact, as we know personally, respectable solicitors in country towns will not condescend to be mixed up with the lectures and charlatanic machinery of the Trumpeter. There is a nondescript species, compounded of attorney's clerk, lodging-house keeper, coal agent, and house agent, which supplies many low Life Assurance agents and the bribes which the Offices offer for business are fairly sufficient to over-master whatever self-denial we may suppose these agents to possess.

We use the word *bribe* deliberately, because no other word expresses the nature of the payments made by the Offices to their agents, and the motive with which those payments are made. They are not payments for skill, time, trouble, or responsibility, but they are intended solely to induce agents to bring business; and the amount to which this system is carried is startling.

Let us suppose that the father of a family whose income dies with him, is desirous of making provision for his wife and family, determines on investing £100 per annum in life assurance, and is introduced by a disinterested and conscientious attorney to the Blue Bag and Universal Life and Fire Assurance Company. The examinations and questions are all gone through, the money is paid, and the policy signed. Everything so far is settled between the assured and the Office. But between the Office and the agent there is another recondite little transaction. The attorney may receive, if he pleases, £35 per cent. on the first premium as his full share of the plunder. If the life be a bad one, he will, if wise, pocket the £35. Or, he may receive £10 per cent. on the first year's payment, and £5 per cent. on each subsequent payment. This, it may be said, is a fair remuneration for trouble and responsibility. But there is a still further share of the loaves and fishes in store for our disinterested friend. At the biennial or other periodic division of that mythical quantity which is called the *profits*, he will receive a sum about equal to 75 per cent. on the commissions already paid. That is to say, supposing the premium = £100, the attorney receives—

First year	£10
Second ditto	5
Third ditto	5
Besides 75 per cent. on commissions .	15
	£35

This is the new system of bribes; the giving to the agents a share of the so-called profits at each periodic division. A very pleasant prospect for the agents! What it is for Paterfamilias, we say not. But we would ask if, with such a system, all agents can be expected to resist temptation?

A LIBERAL OFFER, AND A SINECURE.

Sir Benjamin Hall, we fancy, if not terribly "given to idols," must be a little tickled at the manner in which some of his new-fledged family are amusing themselves, for sober seriousness is quite out of the question. For instance, the Committee appointed to prepare by-laws in execution of the Metropolis Management Act, have proposed to fix the Medical Officer's salary for the conjoint parishes of Fulham and Hammersmith at £100 a-year. A strong opposition, we understand, is organized to this proposition, as being contrary to the intentions of the Government, which clearly were that the Medical Officer of Health should be, to all intents and purposes, their officer, and nothing else, free from the calls of private practice, or at least above the pressure of necessitous circumstances; and, therefore, the clause places no restriction as to a minimum or maximum remuneration, the words being "to pay such salary as they (the Vestry and District Board) shall think fit." It is a pity, however, that Sir Benjamin Hall did not provide against such contingencies as those of Fulham and Hammersmith.

We think that at least it would have been better if he had fixed the minimum remuneration which would certainly secure what he desired, without any fear or trembling as to the maximum tendencies of little oligarchies when dealing with the Medical Profession. Now, once for all, we will record, for the benefit of such Vestries and District Boards and their Committees, what under the Act, are the *general* duties of the Medical Officer. First of all, we premise that he is to be a "legally qualified Medical Practitioner, of skill and experience." This condition fulfilled, he is to inspect and report periodically upon the sanitary condition of the parish or district; he is to ascertain the existence of disease (more especially epidemics) increasing the rate of mortality; he is to point out the existence of any nuisance or other local causes which are likely to originate and maintain such diseases and injuriously affect the health of the inhabitants; he is to take cognizance of the fact of the existence of any contagious or epidemic diseases, and to point out the most efficacious mod-

of checking or preventing the spread of such diseases. He is also to be in some measure an Engineer, part of his duties being to *point out the most efficient modes for the ventilation of Churches!* Chapels!! Schools!!! Lodging-houses!!! and other public edifices within the parish or district!!!! and last, *not least*, he is to perform *any other duties of a like nature which may be required of him.* Now, what manner of man must he be who is competent to the conscientious discharge of these duties? Certainly not a man raw from College or a Medical school; certainly not the young Practitioner who has managed to live a few years, waiting for practice; nay, he is to be of "skill and experience," and with this he is to go forth to his onerous and very hazardous duties, with the prospect in three months of receiving £25 from the men of Fulham and Hammersmith!

We may, it is not unlikely, have another visitation of cholera this year; or, without that, we have always plenty of typhus and other fevers abounding; he, the Medical officer, is to throw himself into the very foci of these scourges; he is to subject himself to the influences of every lethal abomination, not, be it remembered, with the sweet encouragement of treating to a cure those whom he may see with the plague-spot upon them, but for the weighty consideration of being a public officer, and of receiving a remuneration less by a great deal than many a begrimed handicraftsman at Maudslay's receives, without a per-centage of the risk, and none of the anxiety. If any of the Profession should be found to accept this offer, and should die of infection caught in the discharge of his office, his epitaph should be, "Died of £100 a-year."

MORTALITY STATISTICS OF THE METROPOLIS FOR 1855.

We publish, in the present Number, the usual Table of Mortality in London; which will be found of enhanced interest, from the additional facilities as to information afforded last year by the Registrar-General. The general results may be briefly stated as follow:—The number of deaths in 1855 was 61,506, or 2·6 per cent. of the population; this is a decrease on the previous year of 12,191, when cholera was very fatal in the summer months, but is an increase on the mortality of 1853 of only 304; while in the two years there has been an increase of population by births of 34,425. Of the total amount of deaths, 29,654, or 48·2 per cent., are of persons under 20 years of age; 8803, or 14·3 per cent., at 20, and under 40 years of age; 9814, or 16 per cent., at 40, and under 60 years of age; 10,550, or 17·1 per cent., at 60, and under 80 years of age; and 2235, or 3·6 per cent., at 80 years and upwards. According to the population under each age, the deaths of persons under 20 years are 30·8 per cent. of those living at that age; from 20 to 40 years, 1·05 per cent.; from 40 to 60 years, 2·4 per cent.; from 60 to 80 years, 7·8 per cent.; and from 80 years and upwards, 24·5 per cent.; so that actually more die, in proportion to the number living at the respective ages, under 20 years of age, than at 80 years and upwards. Surely it is quite time that most searching inquiries should be set on foot as to the fact, that nearly half of the mortality of London occurs to persons under 20 years of age. Is it a law of nature which humanity must submit to? or are we perpetuating conditions of society, under which it is impossible for the half of our rising population to exist? Can the Registrar-General give us no clue towards the solving of this problem? The zymotic class of disease has been fatal during 1855 to 13,528 persons, and the tubercular class, under which phthisis ranges itself, to 10,456; while diseases of the respiratory organs have carried off 11,114 victims. Of 84,000 women in London who have been in labour during the year, only about 300 have died. The sudden deaths have been 652; in 1854, they were 651; and the deaths from violence were 2335, against 2250 in 1854, and 2401 in 1853. The deaths, as to the five districts into which London is divided, were as follow, in proportions per cent. to the population of those districts:—West, 2·41 per cent.; North, 2·53; Central, 2·48; East, 2·73; South, 2·68. In the West districts 74 died of small-pox and 332 of typhus: North districts, 284 small-pox, 419 typhus: Central districts, 125 small-pox, 311 typhus: East, 256 small-pox, 578 typhus: and in the South districts, 285 small-pox, and 692 typhus 6552 persons died in workhouses; 2956 in general hospitals; 441 in hospitals for special diseases; 65 (of whom 39 were infants) in Lying-in Hospitals; and 456 in Lunatic Asylums.

Of persons in the various classes on which death levied its tribute, 424 were in high state offices, or were in the civil service, or local officers; 868 were soldiers, seamen, or pensioners; 382 were men in the learned professions, or their subordinate assistants; 153 were persons engaged in literature, and in cultivating the fine arts or sciences; 1937 were innkeepers, domestic servants, or employed in making or in selling dress; 765 were engaged in commerce; 1902 belonged to the carrying class; 371 were agriculturists (including gardeners); 165 were engaged about horses and other animals; 2655 were workers in the mechanical arts, employing materials of various kinds; 805 persons were workers and dealers in animal matters, 1835 in vegetable matters, 1168 in minerals; 1065 were rude labourers; 588 were annuitants, persons who had retired from business, or persons of some rank and property, but of no definite occupation; and 68 were persons supported by the community, and of no specified occupation. The population, under these several headings, will be found in the Table. Of the 84,944 births (which are 3·6 per cent. of the population), 43,352 were of males, and 41,592 of females; the former preponderating by 1760; and of the 61,506 deaths, 31,203 were of males, and 30,303 of females,—900 males more than females. The increase of population accruing by births is 23,438; but, as we have often remarked, we consider the registration of births as most defective, there not being the same compulsion to register as in the case of deaths. For other matters, such as the relative mortality in seasons, the effects of temperature, etc., we must refer to the Table itself, which we think will be found valuable as a standard document for reference.

THE WEEK.

A very ludicrous case was tried before Mr. Baron Bramwell on Monday last in the Court of Exchequer. A Homœopathic and Hydropathic Practitioner, named Dr. Griffith Jones, sought to recover the sum of £58 for journeys and Medical attendance on the daughter of a cowkeeper and milkman, who paid £25 into court. The Bar appear, from the report of the trial, to have made themselves very merry at the expense of the Homœopathic quackery. One of the lotions prescribed was *lotio ordinaris*, which the Homœopath described as *flint water*, or water of silica. (A very slight knowledge of chemistry would have instructed any persons, not Homœopaths, that silica is insoluble in water, under ordinary circumstances.) The mixtures prescribed, contained one millionth part of a grain of aconite, and the same proportion of belladonna. Notwithstanding this active treatment, the patient became worse, and eventually died, and the Homœopath then claimed remuneration for his attendance at the rate of a guinea a visit. He would probably have succeeded in establishing his claim to the satisfaction of the jury, had it not come out in evidence that after paying ten or twelve visits he had been virtually released from attendance by the girl's father, on the ground of inability to pay such heavy fees, and that his subsequent

attendance had been voluntary on his part. The jury brought in a verdict, that the £25 paid into court was a sufficient remuneration, and we think that there are very few persons in their senses who would not consider that sum as a *million times* too large to meet the justice of the case. To make the case worse against the Homœopath, it appears that he endeavoured to insinuate that the patient's malady was caused by a loathsome disease, an imputation which seems to have been wholly destitute of foundation.

It appears that the body of Mr. John Parsons Cook, who, it is alleged, was poisoned by strychnine by William Palmer, has been exhumed at the instance of the relatives of Palmer, in order that a further investigation may take place as to the cause of death; and it is said that a Medical gentleman from Birmingham has been requested to examine the body on the side of the accused party. It is now suspected that another person named Bladen, a brewer's traveller, has also met his death by unfair means at the hands of Palmer, and application has been made to the Home Secretary for the means of promoting the necessary investigations.

A very melancholy case of accidental poisoning has recently occurred at Dingwall, in the north of Scotland, two Roman Catholic priests, and another gentleman, having perished by eating at table of some of the roots of the *Aconitum napellus*, served up instead of horseradish. It seems that the upper part of the plant had withered, and the root, being very similar to horseradish root, was dug up by the servant by mistake. The symptoms consisted in a parched and burning sensation in the mouth and throat, great thirst, vomiting, and severe pain, followed by rapid sinking. The aconitum napellus, or monk's-hood, a common ornament of our gardens, and generally, though, perhaps, inaccurately represented as an indigenous plant, is one of the most deadly poisons afforded by the vegetable kingdom.

A case of alleged poisoning at Manchester has lately excited considerable attention, as the circumstances are, in some respects, similar to those in which Palmer stands involved. In the Manchester case, it is suspected that an old man has been poisoned by acetate of lead, administered in whiskey by his son and two other persons, for the purpose of obtaining a sum of money from the office in which his life was insured. We are very sorry to find that a member of our Profession is implicated in this transaction; and although the evidence at present is by far too imperfect to permit any definite opinion upon the case, we must say that Mr. Thomas Bull Holland cuts a very bad figure; for, whether he aided or not in the particular proceedings which have caused the investigation, he appears, at all events, to have associated with somewhat disreputable characters, and his behaviour in the witness-box has not in any way added to his reputation. The evidence in this case of poisoning by lead is unsatisfactory; and we may observe, *en passant*, that the salts of lead are by no means so poisonous as is generally supposed, as pretty large doses are required to produce pernicious effects. But the same is the case with the preparations of antimony, by which mineral it would appear that Mrs. Palmer was poisoned; and it is very possible that in weak constitutions a comparatively feeble poison may produce fatal results. The horrible details of poisoning with which we are now inundated will, at all events, tend to solve some important questions in Toxicology.

The lengthy proceedings which have been instituted in the Prerogative Court relative to the will of the late Mr. Dyce Sombre, were brought to a conclusion in that Court on Saturday last, when a judgment was given against the will, thus restoring to Mrs. Dyce Sombre the bulk of the property. It will be remembered that Mr. Dyce Sombre was declared a lunatic in this country; that he escaped from custody, and found his way to Paris, where, after a very imperfect examination, he was pronounced sane; that he entertained groundless suspicions of his wife's fidelity, imagining, among other delusions, that she had committed adultery with her own father in open day in Hyde Park; that he insisted upon the illegitimacy of his sisters, Mrs. Troup and the Baroness Solaroli; and that acting on these absurd delusions, he left the bulk of his enormous property to the East India Company (with which he had been previously at continual variance), for the purpose of establishing a college for the education of natives. Entertaining as we do, from the evidence adduced, a very strong opinion of the insanity of the testator, we are rejoiced that the will has been set aside; the more especially as the result is injurious to no person, and will be satisfactory to the widow and to the sisters of this deluded gentleman. The judgment must in some measure compensate them for the cruel aspersions to which they have been subjected by the ramblings of a disordered imagination. The sentence of the Judge condemns the East India Company and the other defendants in the costs of the suit, and severe as this decree is, we think it not more severe than just. Supposing the evidence adduced in this case to be true, there can be no doubt that Mr. Dyce Sombre was a lunatic when he made the will in question; and we are glad to find that those who would have injured his widow and sisters by enforcing the opposite opinion, have been condemned to pay the expenses attendant upon the tedious process of the law.

REVIEWS.

Aids during Labour: including the Administration of Chloroform, the Management of the Placenta, and Post-partum Hæmorrhage. By John Rowlinson Pretty, M.D. Small 8vo, pp. 210. London: 1856.

The subjects thus indicated on the title-page of this work constitute its principal contents. They have already formed matter of controversy in the Medical journals,—we shall not, therefore, reproduce their discussion in this place, although we are not disposed to concur in all the author's positions and conclusions. That Dr. Pretty is an accomplished Practitioner is sufficiently attested by his acquaintance with the science of obstetrics, which his work manifests. The defects and faults of style, which would seem to detract from its merits, may be attributable to hasty publication. The engagements of general practice, it is admitted, leave but little leisure for re-writing what has once been committed to paper.

A Practical Treatise on the Diseases of the Testis and of the Spermatic Cord and Scrotum. With numerous Wood Engravings. By T. B. Curling, F.R.S., Surgeon to the London Hospital. Second Edition, 8vo, pp. 519. London: 1856.

The work under notice is so well and so favourably known to the Profession, that it is scarcely necessary to do more than refer to the appearance of the second edition, which is a considerable improvement upon the first. Twelve years have elapsed since the publication of the first edition, much has been added to our knowledge of the pathology and treatment of the diseases in question since that date, and Mr. Curling has taken care to give us the most recent information on these points.

The chapters on Acute and Chronic Orchitis are excellent; the pathological conditions of these diseases being carefully described, and their treatment judiciously laid down. The author lays great stress upon employing repeated nauseating doses of tartrate of antimony in acute inflammation of the testis, and experience fully confirms the value of this remedy in cutting short the attack if employed at an early period.

He does not recommend compression by strapping in the

acute stage, but thinks it a valuable means after these symptoms have been relieved.

With respect to the treatment of the fungous protrusion resulting from chronic orchitis, and about which there has of late years been some discussion among Surgeons, Mr. Curling does not entirely coincide in the view of Professor Syme, who recommended, a few years ago, that the protruded part should not be excised, but should be preserved and covered by the surrounding scrotal integument. Mr. Curling says, "Though this operation is in many instances uncalled for, the case readily admitting of cure without it, the conception was a good one, and in certain cases this plan undoubtedly promotes and hastens the healing process. But the operation is unfitted for those cases in which much enlargement of the exposed gland still exists from adventitious deposit in its substance; at any rate, until partial reduction of the growth has been first obtained by constitutional treatment and rest." —P. 26. The best manner of treating these cases, according to Mr. Curling, is to use well-regulated compression by means of lint dipped in a solution of nitrate of silver, and over this, adhesive plaster and bandage; at the same time, if there be much enlargement and induration, some blue pills may be given.

We are somewhat surprised to find Mr. Curling an earnest advocate of castration for encephaloid tumour of the testicle. Our own experience has led us to doubt much whether, in the majority of cases, any benefit is likely to follow the operation, for generally the disease has at the time most probably existed, or has soon after operation appeared in some internal organ. Mr. Curling, however, gives some good reasons for his practice; and one, among others, is that the operation of castration has never been fatal in his hands.

One point of great practical interest has been much under consideration since the first edition of Mr. Curling's book was published, viz., the cure of varicocele by ligaturing the dilated veins. Celsus, Sir Everard Home, and Delpech, have recommended this mode of treatment, but it has not been much practised in this country. A few years since, however, some of the Surgeons of London tried the plan again, and we had opportunities of judging of its efficacy; and, from what we learned, we should be inclined to agree with Mr. Curling, that it is a remedy of a doubtful and dangerous nature. In one case death took place soon after the operation, and the cure was not permanent in all the others. Mr. Curling does not appear to have had any personal experience of this plan, but he seems to have obtained a correct estimate of the unsatisfactory and dangerous nature of this operation. He considers that pressure "answers so well in relieving varicocele, that, except in some rare instances, no operation is required for this disease" (a).

We shall not devote any further space to the work under notice, as it is so well known to the Profession already. We can only say that it should be in the library of every practical Surgeon. The present edition is much improved, contains numerous woodcuts, and several accounts of cases illustrating the various diseases of the testicle.

We are pleased to find that the author has made generous mention in the Preface of the late Mr. Harvey Ludlow, and has paid a high compliment to that Surgeon's talents and acquirements; and he has made use of the essay, for which it is well known Mr. Ludlow obtained the Jacksonian Prize.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

Edinburgh, January 26, 1856.

Yesterday evening a *conversazione* was held in the Royal College of Surgeons, at which most of the leading Medical men in Edinburgh were present. Dr. Andrew Wood, the President of the College, occupied the Chair, and delivered a short address at the commencement of the proceedings. He enforced the propriety of meetings for scientific purposes among learned bodies, and stated that it was the determination of the College of Surgeons to have a series of such meetings. He then introduced Dr. Sanders, the conservator of the Museum of the College, to the guests, who delivered a lecture on

THE CELLULAR THEORY OF DEVELOPMENT.

He commenced by stating that the cellular theory, as propounded by Schwann and Schleiden, is sufficiently simple to be grasped readily, even by the unscientific mind. It affirms that all animals and plants are alike in their minute elementary composition. That, in a final analysis, they are found to originate in nucleated cell germs. By this single principle all organized bodies are to be understood, and their structure explained. Water is developed into cells, cells or particles into complete organs. Identity of form is characteristic of the original elements of all plants and animals. In nature there are two processes in incessant activity, decomposition and recomposition. The human body amalgamates and represents microcosmically all the processes of nature, the incessant removal and reconstitution of vital phenomena throughout her various kingdoms. Dr. Sanders concluded with a few eloquent observations upon the light reflected by this theory upon the unity and simple grandeur which pervades the operations of the Creator, the wonders of that wisdom and power which by means so simple have clothed the earth with beauty, and filled it with animal life.

At the conclusion of the lecture, Professor Simpson rose and said, that he considered it befitting that he, as a guest of the College of Surgeons, being a Fellow of the College of Physicians, should propose an acknowledgment of thanks for the lucid development of the cell theory to which they had had the pleasure of listening. It contained the highest generalization of philosophical anatomy, and could not but be extremely interesting to all present. "Dr. Sanders," said he, "is destined to assume a high position in his profession, and deservedly so." He hoped that this projected series of meetings would not stop there, but be continued, convinced, as he was, they would prove of lasting benefit to the Profession in Edinburgh.

The President, in thanking Dr. Sanders in the name of those present, paid a just compliment to the terseness and lucidity of his style.

ACCIDENTAL POISONING—THREE PERSONS DEAD.

A calamitous occurrence took place at Dingwall, on Tuesday, which has created a most painful sensation in Ross-shire and the neighbouring counties. It appears that John Maciver, Esq., Provost of Dingwall, had a private dinner-party on Tuesday afternoon, consisting of Lewis M. Mackenzie, Esq., of Findon; the Rev. Messrs. Mackenzie of Eskadale and Gordon of Beauly, Roman Catholic priests; John Macdonald, Esq., Torridon; and the members of Mr. Maciver's own family. After dinner, Mr. Gordon complained of a parched mouth, and, having taken a drink of water, retired. Mr. Macdonald felt the same symptoms, and also withdrew for a short time, while the others remained at table. The Rev. Mr. Mackenzie then became ill; and a little after, Mr. Maciver and Mr. Mackenzie of Findon began to complain. Dr. Smith was sent for, but before his arrival death had made his inroads. The two clergymen, after violent vomiting, expired, and Mr. Mackenzie of Findon quickly followed. Mr. Macdonald, having left the house, walked about, and to this and to his native vigour and activity his recovery may mainly be attributed. Mr. Maciver, we are glad to say, having been kept walking about in the house, is recovering, and no other was taken ill. The authorities were soon on the spot; little could be done to check the career of death, but the cause of the dire catastrophe is scarcely matter of conjecture. From what has transpired, we may state that the cook sent the male servant to the garden for some radish for the roast-beef, and he, through mistake, took monkshood root to her, and this formed the sauce for the beef. It is now thought, that as all the parties who have died, as well as Mr. Maciver and Mr. Macdonald, ate more or less of the beef, that the deadly poison was in the sauce, and that the awful disaster hence originated. As yet, there has been no dissection of the bodies, and we believe this awaits a communication from Edinburgh. We understand that the Sheriff (superior legal officer) proceeded at once from Edinburgh to Dingwall, on receiving the official account of the tragedy, taking with him Drs. Christison and Douglas Maclagan, and that the result of investigation made by him, fully confirms the report given above of the cause of the fatal catastrophe.

(a) Page 439.

DR. BENNET'S INTRODUCTORY LECTURE,

which has been published under the title of the "Present State of the Theory and Practice of Medicine," is exciting considerable attention just now, on account of a pamphlet remarking on it in terms of great severity, by Dr. John M'Gilchrist, a gentleman of great talent, and not unknown, we understand, to the frequenters of your London theatres, by some of his performances, which have been acted on the stage.

The criticism of Dr. M'Gilchrist was originally communicated to the Hunterian Medical Society, and has since been published.

The poem which Dr. M'Gilchrist lays down, is stated as follows:—

"It is because I conscientiously differ from Dr. Bennet,—because I consider the scientific position he would assume for modern Medicine unphilosophical and untenable,—no less than because I think his Lecture a narrow and illogical production,—that I embrace this opportunity of indicating what I believe to be some of the specious fallacies—the barren speculations—the *ignes fatui* of modern medicine." (a)

Having thus discussed the questions raised by the Lecture, Dr. M'Gilchrist concludes with the following verdict, not very complimentary to the learned Professor:—

"We have now done with Dr. Bennet's Lecture,—a production, we make bold to say, remarkable for the narrowness of its views, the absurdity of its illustration, and the ignorance it betrays of the first principles of ratiocination."

A pamphlet written in a spirit of such uncompromising boldness could not fail to produce considerable excitement, especially among the Students, and it forms the constant theme of conversation in Professional circles.

Dr. Bennet has certainly got an ugly customer to deal with, and the general opinion seems to be, that his interest will counsel him to consult the better part of valour—discretion.

The less sympathy is felt for Dr. Bennet under this castigation, on account of the offence which has been given to the Profession by a paper published by him in the current number of the *Monthly Journal*, "On the Diagnosis of Phthisis Pulmonalis."

In this paper, the author somewhat arrogantly, as is thought, assumes a superiority in diagnosis which those who have watched the non-verification of his prognostics, by dissection in the Infirmary, are by no means willing to accord to him. The reaction produced, in consequence of this assumption, has called to mind many stories previously floating about, such as those to which Professor Henderson has given embodiment, in his "Homœopathy fairly Represented."

"I have known," says Dr. Henderson, "a great advocate for Cod-liver oil in consumption, mistake chronic pleurisy for the other disease. I have known an eminent stethoscopist, for mere irritation of the throat, which he treated with caustic as usual, mistake pulmonary consumption, which was fatal within the week by the bursting of a tubercular abscess into the pleura. I have known an instance in which a notable Hospital Physician, not finding, on dissection, the pulmonary disease he had mapped out and described to his pupils, adroitly remarked, 'Gentlemen, you perceive the appearances on dissection don't correspond with the stethoscopic signs heard during life' (the lung was sound)."

ROYAL INFIRMARY.

An adjourned meeting of the contributors to this useful and popular charity, so important to the Medical School of Edinburgh, was held here on the 21st instant.

The following are some of the most interesting results brought out in the Report of the Committee of Investigation into the affairs:—

The number of patients was smaller last year than the previous one, the numbers respectively being 4397 and 4600, the latter being less by 67 than the year immediately preceding. While, owing to the high price of provisions, the expenditure has increased, there has been a saving of £237 on wine and spirits.

The average residence of the patients is 38½ days.

The wages of the nurses have been raised, with a view of securing women of a higher moral character.

The ordinary annual revenue obtained by voluntary subscriptions averages about £4000, but during the past year £5800 was raised in addition by a special effort, and the debt has, in consequence, been reduced from £8250 to £5349, or to £2041, if the sum incurred for building is deducted. The ordinary annual expenditure is £12,529, while the utmost amount at which the income can be stated is £11,320.

The average cost of each patient is about 47*s*. Various suggestions are made for the improvement of the income, on the discussion of which we need not enter.

PREVALENT DISEASES.

Small-pox, which has been very rife in Aberdeen and Dundee, has reached Edinburgh. Scarlet fever is rather on the increase, and there is also a good deal of measles.

(a) We shall not give our Edinburgh Correspondent's farther remarks on this pamphlet, because it is our intention to present our readers, in our next number, with a full review of Dr. Bennet's Lecture and Dr. M'Gilchrist's comments.—Ed. *M. T. & G.*

GENERAL CORRESPONDENCE.

THE COLLEGE OF SURGEONS, AND THE SOCIETY OF APOTHECARIES.

[To the Editor of the Medical Times and Gazette.]

Sir,—Can you, or any of your numerous readers, inform me whether there is a probability of a new Medical Bill being introduced into Parliament next session?

I, in common with many others, have only taken the diploma of the College of Surgeons, and do not wish to throw six guineas away upon Apothecaries' Hall if there is any probability of the law being altered. At the same time, if there is no chance of a new bill being brought in, it would be better to do so, as I find the generality of Medical men in the country treat a M.R.C.S. with less consideration than they do a quack—indeed, I have known instances when the latter has been allowed to go on with impunity, whilst a Member of the College has been persecuted in every way, and threatened with prosecution, for what the Members of the Hall are pleased to term illegal practice.

This treatment is sanctioned, too, by the authorities at Apothecaries' Hall, and they will prosecute a Surgeon for practising, if it is *desired* by one of their members; at the same time, they allow hundreds of quacks to flourish without interfering with them in any way.

In London, and several parts of England and Wales, there is a large number of Surgeons practising without the L.A.C., some of them too having Union Appointments, and yet in other parts of the country they would be looked upon as *unqualified*, and treated as such by some members of the Profession.

It is, I think, quite time this anomaly was done away with. If a Surgeon is not to be considered qualified until he has taken the L.A.C., then let none practise without it; but if (as is the case) numbers are allowed to practise without interference, I think the same protection should be extended to all, and that no Member of the College ought to be exposed to attacks upon his Professional character, merely because he has not the Apothecaries' licence.

Besides, a Member of the College is considered qualified to practise by the Army, Navy, and East India Company's Boards; and if a Surgeon is capable of treating the diseases which occur in those departments, my opinion is, that he is also fit to practise in the country. I am, etc.

January 26, 1856. A Country Surgeon.

[We cannot tell whether there will be a new Medical Bill introduced into Parliament this Session, but we suspect not. We think that our correspondent is quite right not to throw away his six guineas upon the Apothecaries' licence, if he can practise legally without it. There is a further economy, both of money and of labour, in passing only the examination of the College of Surgeons, for at the latter board there is no need for preparing the unimportant subjects of chemistry, materia medica, forensic medicine, toxicology or the practice of physic, and even midwifery may safely be declined. There is also an economy of money, for the College of Surgeons requires little Medical Hospital practice, fewer lectures on the Practice of Physic and on Chemistry, and no Botany. Some persons think, however, notwithstanding these obvious advantages, that the standard of education fixed by the College is rather too low, and this opinion is shared by no inconsiderable portion of the Profession.—Ed. *M. T. & G.*]

SUPPLY OF VACCINE LYMPH.

[To the Editor of the Medical Times and Gazette.]

Sir,—Can you, or any of your readers, inform me if the supply of Vaccine lymph from the Royal Small-Pox Hospital to members of the Profession is to be regarded as a favour or a privilege?

If the former, we must not "look a gift-horse in the mouth," but if the latter, I must complain of the delay and want of punctuality evinced at that institution with regard to written applications for it, and which render this source of supply so uncertain as to be almost nugatory for purposes of practical utility and convenience.

Surely, at a time when so much is being said on the subject of Vaccination, there ought to be no question whatever as to such a primary and essential point as that of ready and accessible sources of supply of that *sine quâ non*, the *materies morbi*.

I think it due to those connected with the "National Vaccine" establishment in Fitzroy-square, to state that I am informed by a Medical friend that his applications to it always receive immediate attention.

I think you would render some of your numerous readers as well as myself a service, if you would kindly inform us what are the various institutions in the Metropolis in which a supply of lymph can be obtained with promptitude and punctuality, and to which members of the Medical Profession may apply for it without being made to feel that they are incurring an obligation in doing so. I am, etc.

January 26, 1856. Q.

VACCINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—Numerous papers have lately appeared in your Journal on the subject of Vaccination, and I cannot but imagine that the disrepute into which this operation has fallen has been caused in a great measure by the manner in which it is performed; for its success depends as much on this circumstance as on the quality of the matter employed.

I am in the habit of using a small instrument, furnished at one end with a small lancet sufficiently sharp to open the vesicle; at the other end are three or four stout but sharp needles, and this end I employ to introduce the virus, by holding the skin of the upper arm rather tightly, and drawing the points across, first transversely, then longitudinally, producing an abrasion, and to this the virus is applied.

I think that this plan is preferable to the one usually adopted—viz., the employment of the lancet; it is much safer, and answers most admirably. I am aware that this instrument has been previously described in some other journal; but finding that few Medical men employ it, or, indeed, are acquainted with it, and being convinced of its utility, I thought it advisable to bring it more prominently before the Profession. I am, etc.

Brompton, Kent, Jan. 28, 1856. W. Burton.

QUININE IN FEVER.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have read Dr. Peacock's papers on Quinine in Fever, with much attention and interest; they are replete with practical detail.

There is, however, in my opinion, one error in the presumed effects of quinine on the system when given in large and frequent doses; it is in supposing that "tinnitus aurium," so much complained of by typhus and typhoid patients, is attributable to the remedy. I believe this symptom to be due and peculiar to the disease, not the remedy. I am quite aware Dr. Dundas first mentioned this symptom as the effect of the quina when thus given, and undoubtedly considers it strictly so; but if I understand Dr. Peacock correctly, he is not so much inclined to such an opinion, for he says, "In one case only was there more than transient headache and vertigo from the use of the remedy, and this was also the only case in which there was very marked tinnitus aurium." Now, if this symptom is produced by the drug, why should it not be present in every case where it is given?

I have attended a large number of typhus and typhoid cases during the last ten years, and have invariably found this peculiar symptom complained of most prominently; so much so, that I almost venture to diagnose typhus from this alone. Deafness, also, is a most common complication. If Dr. Peacock will inquire of all typhus patients whether this symptom be present previous to administering quina, he will soon confirm, or otherwise, what I advance, and establish the fact whether this is a remedial effect or a pathological condition.

I may remark, *en passant*, that my experience of quina in fever entirely coincides with Dr. Peacock's observations. I was led to try it as a remedy by reading Dr. Dundas's pamphlets, and have given it in 10-grain doses every two hours, as well as in less doses at longer intervals, without, in any one case, witnessing the happy results he so much insists on.

I am, etc.

Southport, Jan. 24, 1856. G. V. Barron.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, January 22, 1856.

Cæsar Hawkins, Esq., President, in the Chair.

OBSERVATIONS ON CONGENITAL DEFICIENCY OF THE PALATE, AND THE MEANS TO BE USED FOR ITS RELIEF.

BY GEORGE POLLOCK, ESQ.,
Assistant-Surgeon to St. George's Hospital.

The author stated his objects in this paper to be not so much the relation of a new operation for the closure of the imperfect hard palate, (although various novel operative procedures are explained in the course of it,) as to draw attention to the fact that few exceptions exist in which the fissures of the hard palate cannot be effectually and permanently relieved by operation—a fact which, for various reasons cited, appeared to have been much neglected by English Surgeons. Mr. Pollock's paper was admirably illustrated by a great many models and drawings of the parts concerned, both previous to operation and during the different stages of the treatment of the cases related. The author divided the different conditions of deformity affecting the hard palate into six groups.

1. The first and most extensive fissure extending through the soft and hard palate—and then dividing in front, passes through the alveolar ridge, making a gap on each side of the incisor teeth.

2. The second extends through the soft and hard palate, and through the alveolar ridge also, by a single gap only, on one side of the incisor teeth. The author had always found congenital fissure of the upper lip associated with fissure, either double or single, of the alveolar ridge; and that when the latter is double, the former was so also.

3. The third passes through the soft and hard palate, and terminates in front immediately behind the alveolar ridge. In this variety, there is often great irregularity of the upper incisors. This group of cases is also accompanied by congenital fissure of the lip.

4. The fourth extends through the soft and about three-fourths of the hard palate.

5. The fifth extends through the soft palate and the palate bones only.

6. The last exists as an opening in the hard palate, and the soft may be entire.

Upon this classification Mr. Pollock laid down the principle, that the more extensive the deformity, the more extensive the surface of the soft tissues, and the greater, therefore, the facility of bringing the edges of the fissure together, and the greater hope of ultimate success. He gave various admeasurements of the parts, in different degrees of deformity, all tending to prove that the lesser the fissure in the bony palate, the more natural will be the curve of the arch, a condition which is found to add to rather than diminish the difficulties of the operation; for although in such cases the soft parts may be readily separated from the bone, yet they will rarely be sufficiently broad or free to meet in the median line without trac-

tion, or a resort to some other operative measures; whereas, in the greater degrees of deformity, the sides of the fissure run upwards, in a direction almost perpendicular, and thus afford a larger surface from which to obtain soft parts. Several cases were next related from the author's own practice, and from that of the late Mr. Avery, to whom Mr. Pollock paid a well-merited tribute of respect and regard. In the relation of the cases, and the sequel of the paper, the following points were insisted upon:—The line of the first incision of the edges of the cleft ran along the line of union between the mucous membrane of the mouth and that of the nose. It is made with a knife, consisting of a flat piece of steel, bent at a right angle, about a quarter of an-inch from the extremity, the cutting edge of which is about an eighth of an-inch broad in the centre, and rounded off narrower to each end; a much broader knife, of the same character, is used to detach the soft parts from the bone, an operation requiring great care, to avoid lacerating and bruising them. Knives bent at various angles are required for various parts of the mouth, and one was recommended, the blade of which should be acted on by a screw; they should be strong and firm, and as broad as can conveniently be used. The edges, when detached, should never be brought together by sutures, unless they fall and meet together without traction. The author advocated the introduction of a suture through each of the curtains of the newly-detached palate, as preferable to the use of forceps, when manipulating them. The ends of the sutures are brought out of the mouth, and tied in a knot, so that there may be no fear of their being withdrawn, and thus the flaps can be raised or moved about without fear of bruising or lacerating the edges, one of the most frequent causes of failure of union. When the flaps or curtains do not meet of their own weight in the mesial line, a curved knife is introduced through the palate, near the last molar tooth on each side, and pushed upwards and inwards between the bone and soft parts, until its point is seen in the fissure, when the blade is moved slightly backwards and forwards. Lateral incisions may also be required. The author strongly insists on the propriety of not attempting too much at once, and for these reasons: the separation of a large surface greatly interferes with its nutrition; both anterior and posterior palatine arteries would be divided at the same time, and sloughing rendered thereby probable; the length of the operation, and consequent fatigue and pain to the patient. The author prefers to operate upon the hard palate first, because the anterior palatine artery being usually divided in that procedure, the flaps obtain ample nourishment from the posterior palatine vessels; and again, firm union of the new-formed palate is usually followed by a sensible diminution in the breadth of the fissure of the soft palate. Again, it is the more tedious and painful operation of the two. In operating on the soft palate the author advocates a novel mode of dividing the levator palati muscle. The flap being put on the stretch by the traction of the suture above mentioned, a sharp-pointed, double-edged knife is run through the side of the palate, on the inner side of the right hamular process, which can be readily felt through the soft parts. The point being kept in a direction upwards and inwards is soon seen to have passed through the soft palate, and projecting into the gap of the fissure above the line of the levator. The handle is next raised, and a sweeping cut made along the posterior surface of the soft palate. The knife, being withdrawn, leaves but a small opening in the mucous membrane, and the levator is found to be freely divided. If this proceeding do not sufficiently liberate the curtain, the incision may be carried down to the free margin of the soft palate. Sutures should never exert the slightest traction or pressure. Their removal, of course, will depend on the circumstances of the case; but usually the first may be removed on the third or fourth day. After the operation, fluid or pulpy food should be given liberally; it is very important to insist on this, as the patient will otherwise be deterred by the pain of swallowing. Whiteness and coating of the tongue after operation are not to be considered indications for the administration of physic; nor are various conditions of the tongue and fauces previous to operation, and which are due to the absence of the hard palate, to be regarded as indications of defective general health; the latter, however, should always be perfect at the time of operation. The operator upon the hard palate is not to be discouraged by failure in gaining union at first, for parts which were thin and scanty are often rendered thicker and more vascular by separation from their attachments. When attempts are made to close an aperture in the palate, caused either by malformation or disease, after paring the edges and separating the soft tissues from their attachments, lateral incisions are frequently necessary; and great general support may be given to the sutures used below the wound, by passing a broad suture through the lateral incisions, and thus including both flaps within its embrace. And this is not its only effect; it prevents the healing of the lateral incisions until the opening has had time to unite. Its use is preferable to that of sponge or lint introduced into the wounds. As chloroform is not applicable to these operations, a degree of self-command and endurance is required, which cannot be expected in an individual under the age of seventeen or eighteen, at which period also the development of the parts affected may be presumed to be nearly completed. Mr. Pollock suggests, in conclusion, that although in all cases in which operative procedure has been attended with success a great improvement has invariably been noticed in the speech and articulation, yet much remains to be done by education. Efforts must be made to change the acquired habit of pronunciation for a new method of articulation, which may be best and easiest effected by the patient repeating words after a teacher, or reading aloud, subject to correction. Difficulties in this respect will, however, often be found to depend upon the fissure in the alveolar ridge, or irregularities of the teeth.

Mr. Brook said the operation for cleft palate, until recently, had hardly ever been considered practicable; and the Profession was greatly indebted to Mr. Fergusson, for the improvement which he had introduced—that of dividing the levator palati as well as the circumflexus palati. With regard to sutures for such operations, he believed the bead suture contrived by himself was the best that could be adopted. Its advantage over the common suture, in which the threads were drawn together, was similar to the advantage of the quilled suture over the ordinary interrupted suture. It was much less likely to cut or lacerate than any other. He had applied five such sutures in one case of cleft palate, in which no section of the muscles was made. On the third or fourth day the two upper stitches dragged out, in consequence of the effects of deglutition, but the rest remained firm, and perfect union took place. In three other cases he had applied these sutures, when the operation had been performed according to Mr Fergusson's plan, and had succeeded in obtaining perfect union. A remark had been made, that the voice in one of the cases related had not been improved as much as had been hoped. He remembered a similar case, and on considering the causes of the impairment of the voice, it struck him that in all probability it arose from the abnormal position which the dorsum of the tongue assumed, by rising in order to attempt to close up the fissure. He accordingly corrected the habit thus acquired, by placing on the tongue a flattened piece of boxwood, about the size of a sparrow's egg, a thread passing through it, which came out at the angles of the mouth, being retained by a little slip of elastic behind the head. The articulation then became much more distinct.

Mr. Henry Lee said, he should be glad to know why Mr. Pollock suggested the employment of the ligature, instead of the forceps, to steady the soft palate, while the edges were pared. Mr. Pollock's objection to the forceps was, that it was liable to bruise the soft palate; but, as only its extreme edge was seized by the forceps, the part which was afterwards removed, he (Mr. Lee) apprehended that there could be no great disadvantage in using that instrument. Mr. Pollock recommended the division of the levator palati through the soft palate, instead of behind it, as recommended by Mr. Fergusson. This seemed to have been successfully done in Mr. Pollock's case, but he (Mr Lee) could not help thinking that it was a very difficult operation. The circumflexus palati might be easily enough divided, but it was not so easy to divide the levator palati, from which, he believed, and not from the circumflexus, the great traction originated. He should be glad to know why Mr. Pollock recommended his deviation from the plan of Mr. Fergusson in the division of the levator palati.

Mr. Pollock believed his method to be a simpler one than that recommended by Mr. Fergusson. If the point of the knife was introduced close to the inner surface of the hamular process of the pterygoid plates, and passed upwards and inwards, it would be seen to pass out in the gap of the fissure, and above all the fibres of the levator palati; by then elevating the handle of the knife, the muscle was divided almost

instantaneously, and with all the fibres of the tensor palati, which passed to be inserted in the soft palate. His object in adopting the method referred to, of dividing the levator palati, was, that he thought, in the case in question, it would be desirable to cut through the palate on one side, in order to get sufficient soft tissue, of which there was but little. The plans he suggested, he thought on the whole more desirable than that of cutting behind. It might not be so in the hands of very skilful Practitioners; but most Surgeons would feel a little nervous in cutting with the knife where they could not see. By the plan he had suggested he thought the operation was simplified, and the operator might have greater confidence. In cutting behind, the knife often hung, as it were, in the soft palate, the mucous membrane dragging upon it, so that it did not cut clean. In the case he had mentioned the flap came down with the greatest ease after the knife was withdrawn. He did not think there was any great object in dividing the tensor palati, because in such cases there were few of the fibres which went to the soft palate. He was well aware of the advantage of the bead suture, which he had himself employed in cases of vesico-vaginal fistula: but in cases of cleft palate the object was, not to draw the parts together, but merely to prevent them from separating, so that it was of no great importance what kind of suture was employed.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

January 15, 1856.

Mr. Arnott, President, in the Chair.

Mr. Hutchinson read a report by Dr. Wilks on the specimens of

DISEASED SUPRA-RENAL CAPSULES,

exhibited by him for Mr. R. H. Bakewell at a former meeting. Dr. Wilks's examination had fully confirmed that previously made. It appeared that in neither organ did any portion of normal structure remain, the whole having been destroyed by fibro-calcareous degeneration.

Dr. Van der Byl exhibited specimens from a case of

EXTENSIVE PLUGGING OF THE ARTERIES.

The patient, a nervous woman, had died rather suddenly, after an illness of some weeks. From the first there had been no pulsation in the left wrist, and while under observation pulsation had also become lost in the left lower extremity. The autopsy fully accounted for these phenomena by showing the main arteries of the affected limbs completely plugged by lymph clots.

Mr. Erichsen inquired whether any excessive cutaneous sensibility had been noticed in the affected limbs.

Dr. Van der Byl replied in the negative.

Mr. Erichsen said that his reason for asking the question was, that in two similar cases, formerly under his notice, there had been excessive sensibility of the integument. He suspected that the case was one of idiopathic arteritis, and that the lymph had been effused from the lining membrane of the vessel.

At the suggestion of the President, Mr. Erichsen was appointed to examine the specimens, and report upon them.

Dr. Peacock showed a specimen of

FIBRINOUS SPUTUM.

It had been expectorated by a middle-aged gentleman, who had long laboured under asthma, but whose symptoms had recently approximated more to those of phthisis. The mass, which was branched and of considerable length, was tinged of a deep red colour, and its expulsion had been attended by slight hæmoptysis.

Mr. Henry Thompson showed a preparation of

POLYPOID GROWTH FROM THE PROSTATE.

The patient, a man, aged 54, had died of pneumonia in the Marylebone Infirmary, the only history of vesical symptoms being that he had long been in the habit of passing his water very frequently. The specimen showed a pedunculated polypoid growth attached to the prostate, and projecting back into the bladder. The microscope showed only "fibro-plastic" cells, and cells elongating into fibres. Mr. Thompson remarked upon the rarity and almost unique character of the specimen.

Dr. Quain exhibited, for Dr. Cursham, a specimen of

CONGENITAL MALFORMATION OF THE HEART,

Which showed, at the base of the septum, an opening which readily allowed a florin to pass through it. The aorta arose directly over the septum, and thus communicated with both ventricles. The pulmonary artery was small, and so were the pulmonic valves. The other portions of the heart were tolerably healthy, save that the foramen ovale was open. The subject of this malformation was a young man, aged 18, who at two years old presented some appearance of cyanosis. At six, he became delicate, coughed, and continued to cough for the following ten or twelve years. He finally had hæmoptysis and the ordinary signs of phthisis. His general surface was bluish; his fingers and toes were clubbed. The lungs presented, after death, the usual appearances of advanced phthisis. Dr. Quain referred to several similar specimens, described in the Society's Transactions, more especially to four in the First Volume; one by the late Mr. Dalrymple, the others by Dr. Risdon Bennett, Dr. Peacock, and himself. It was interesting to observe that, in the present case, as in that described by Dr. Risdon Bennett, death had been caused by phthisis.

Dr. Quain also presented a specimen bearing upon the practice of making

LOCAL APPLICATIONS TO THE LARYNX.

This specimen had been taken from a female who died in the Brompton Hospital, of phthisis, presenting the usual symptoms of tuberculous laryngitis. The parts were only interesting as showing that very extensive and severe disease need not necessarily extend beyond the reach of local applications. The ulceration, it could be seen, had partially destroyed the epiglottis, was distinct around the glottis, and, entering the larynx, had partially destroyed one of the chordæ vocales and injured the other. Yet lower than these last-named parts there was not a trace of mischief. Dr. Quain said that, in such a case, if nitrate of silver or other local applications could be useful, there was no doubt whatever in his mind but that they could be directly applied in the form suggested by Dr. Horace Green—that is, by a properly-made sponge probang. It was not, however, in such advanced cases that benefit could result from local or other applications. It was a delusion to suppose otherwise. Still, in simple chronic laryngitis; in the earlier stages of the tubercular form; in a congested, villous, or so-called relaxed state; and in certain irritable conditions of these parts, such as in the sore throats of clergymen, he believed the application invaluable. It needed, however, great care and some discrimination in practice. In reference to passing the sponge within the trachea, Dr. Quain doubted the possibility of doing so in a vast number of cases; and, in the second place, he did not see the necessity for or the advantage of the practice. Still, he did believe that, in some few cases in which the glottis was large, not so sensitive as in other cases, and the sponge small, it can and does pass beyond the chordæ vocales. This conclusion he had come to from several observations on the living, and experiments on the dead, body. He saw Mr. Erichsen present, who had lately written on the subject, and he thought the Society would be glad to hear his opinion.

Mr. Erichsen stated that his creed on the subject did not, he believed, differ much from that held by Dr. Quain. He admitted that the sponge might be passed into the glottis, and into the vocal chords, but did not believe that it could be made to pass between them. He thought local applications often extremely advantageous.

Dr. Peacock had had extensive experience in the use of local applications to the larynx. After patient trials, he had come to the conclusion that they did no good in cases of tubercular ulceration, and on the contrary, often increased the irritation. In such he had quite abandoned their use, but in certain chronic inflammatory states they still possessed his entire confidence.

Dr. Sibson would remark, in respect to the possibility of passing instruments through the vocal chords, that he had twice introduced a male catheter, without much difficulty, quite into the trachea, and had thereby relieved patients for whom tracheotomy had been proposed.

Dr. Risdon Bennett fully agreed with Dr. Peacock's views

as to the uselessness of nitrate-of-silver applications to the larynx in phthisis. He thought they often increased the sensibility of the parts, and aggravated the patient's sufferings. In cases of chronic laryngitis, however, he had found them effectual where nothing else would succeed.

Dr. O'Connor would remark, that the practice was of much older date than several of the speakers seemed to suppose. Sir Charles Bell used to employ it, and it was mentioned in Dr. Watson's lectures, as a plan followed by Mr. Vance.

The President stated, he had often performed it under Sir Charles Bell's directions, but it was a mere swabbing of the throat, and he did not believe that Sir Charles ever thought of making the application to the larynx itself.

Dr. Watson could confirm the statement of the President, and would apply it also to the practice pursued by Mr. Vance.

Dr. Semple next brought before the Society a specimen of

DISEASED HEART.

The patient, a lad, had suffered in boyhood from acute rheumatic fever. The signs of diseased valves, with hypertrophy, were here so well marked that he had been employed at more than one Medical examination as a test-subject for auscultation. There was a loud sawing systolic murmur at the apex, and a double one at the base. Before death the urine became albuminous. At the autopsy, the diagnosis was fully confirmed. The whole organ was hypertrophied, and both mitral and aortic valves were encumbered by clusters of warty vegetations.

Dr. Pollock showed a preparation of a

DISEASED HEART.

The patient, a man aged 26, died a few hours after admission into the Hospital for consumption, under the care of Dr. H. Roe, but had been for one month an out-patient under Dr. Pollock. He had had rheumatic fever five years previously; and when he presented himself, was suffering from excessive dyspnœa, partial aphonia, slight cough, and considerable anasarca of the lower extremities. The physical signs noted at the time were, extensive cardiac dulness, a harsh double mitral murmur, and coarse bronchial râles over both lungs. The urine was highly albuminous, and the patient had a very cachectic appearance. On examination, fourteen hours after death, the lungs were found gorged with blood, and the air-tubes and cells filled with thick mucous secretion. The heart weighed 16¼ ounces, and was much enlarged. The walls of the left ventricle were ⅝ths of an inch in thickness; the mitral valve much thickened with firm rough granular deposit. From the free margin of one division depended a warty excrescence which hung far into the ventricle, nearly ½ inch long. The right ventricle was thin, and passing from the junction of the upper with the middle third of its anterior wall was a stout, round band, from which arose the chordæ tendineæ of the septal division of the tricuspid valve. The spleen was friable and gorged with blood, much enlarged, and weighed 19 oz. The liver much congested, the cells containing much fatty matter, weight 204 oz. The kidneys much enlarged, weight of each 12½ oz. Under the microscope, uriniferous casts of large size were seen, some waxy, but most granular, in which were numerous fat globules and epithelial débris.

Dr. Ogle exhibited a preparation of a

TUMOUR PRESSING ON THE SPINAL CORD.

The patient, a woman, aged 22, an inmate of St. George's Hospital, had died after an illness, in which imperfect paralysis of all the limbs had been the chief symptom. The paralysis had first appeared on the left side, and had throughout been more marked on that than on the right one. During life there was a tumour distinctly perceptible in the right side of the neck, and for it, under the idea that it was of strumous origin, a course of iodide of potassium had been given. After death, it was found that the tumour had apparently grown from within the spinal canal, and that a portion still occupied that position, and pressed upon the cord. The cord was partially flattened. The laminæ of the vertebra connected with the tumour had been absorbed. The character of the tumour was still a matter of some doubt, but it possessed some cells resembling those of cancer. It had been developed between the dura-mater and the bone.

Dr. Ogle showed also a specimen of

IMPERFORATE ŒSOPHAGUS, WITH OPENING INTO THE TRACHEA.

The child, from whom it had been taken, had lived several days, and had taken food. It had been noticed that, after taking the breast, the milk often passed up again through its nose. The specimen showed the œsophagus ending in a culde-sac in the upper part of its course. The obliterated portion of the tube was very short, and below that part, it was again of normal size. A rounded opening in the posterior wall of the trachea, communicated with the lower tract of the gullet, and below this opening was a valve-like pouch. Dr. Ogle believed that the infant must have swallowed some milk, as it did not die so quickly as it would probably have done had its abstinence been complete.

Mr. Hutchinson inquired whether any milk was found in the trachea or bronchial tubes. It was evident that there was no other way to the stomach, except through the larynx and upper part of the trachea.

Dr. Ogle replied that no evidence was found of milk having passed into the lungs.

MEDICAL SOCIETY OF LONDON.

Saturday, January 26, 1856.

Dr. Snow, President in the Chair.

Before the commencement of the ordinary proceedings, the members balloted for seven persons to form a committee, who should submit to the Society, in accordance with the regulations which we published last week, a list of members whom they should deem eligible for the various offices during the ensuing year. The election fell on the following gentlemen:—Mr. Henry Hancock, Mr. John Bishop, Mr. Edward Headland, Mr. Francis Hird, Mr. Henry Lee, Mr. I. B. Brown, and Dr. Edward Smith.

NEW UTERO-VAGINAL PLUG.

Mr. Cleveland exhibited an instrument he had invented to be used as a mechanical plug in certain cases of hæmorrhage from the uterus, as well as a means of applying cold in more immediate proximity to that organ. The principle of its construction is as follows:—A common vulcanized india-rubber air-ball, of about three inches in diameter, sold at the shops as a child's toy, is fastened to one end of a thin metallic pipe, six inches long. At the other end of the pipe is a stop-cock, with shoulder fitted to receive the nozzle of a large syringe. The air is to be pressed out of the ball, and kept excluded by turning the tap, when it (the ball) may be folded into a small and compact mass, and introduced into the upper part of the vagina. The syringe is now to be applied, the tap turned, and ice-cold water or a freezing mixture injected into the ball until it is distended to a sufficient size, when the tap may be again turned and the syringe removed. The ball, being strong and elastic, will admit of considerable distension. The apparatus may be used with air instead of water. Mr. Cleveland thought some of the advantages of this instrument over the ordinary means employed would consist, in its easy and rapid introduction and removal, its greater efficiency as a plug on account of the equable expansion to which it could be subjected, while the application of cold, the non-absorption of blood, the cleanliness and inexpensiveness of it, were worthy of consideration. As regards the latter point, Mr. Cleveland stated that the syringe could be used for other purposes, and the cost of a new air-ball was a mere trifle.

Dr. Barnes said, he should prefer the ordinary sponge plug, to that exhibited by Mr. Cleveland; it could be pressed in piece by piece, just to the extent required, and was more likely to arrest the hæmorrhage than a smooth ball.

Mr. I. B. Brown thought that one great advantage of the apparatus, was the facility which it afforded for applying iced-water etc., to arrest hæmorrhage.

Dr. Smith said, the ball might be applied to the end of an ordinary enema apparatus, and if it was desired to distend the ball with air, it might be easily done by the mouth.

Mr. Harding thought the metallic tube objectionable, and believed that inconvenience would often arise from the apparatus not being at hand when required. He did not think the ball very useful in uterine hæmorrhage, but thought it would form a valuable pessary, being free from the objection that applied to hard pessaries.

Dr. Crisp advocated the use of the silk handkerchief as the best plug in cases of uterine hæmorrhage.

Dr. Murphy then read a paper on

THE USE OF CHLOROFORM IN CHILDBIRTH.

He stated, in commencing, that he had not the slightest reason to deviate from the opinion he expressed, in 1848, of the extreme value of chloroform in relieving the sufferings of the parturient female, and in promoting her recovery. The author directed the attention of the Society to three points worthy of their reflection. 1st. The progressive effect of chloroform on the nervous system, from which he derived the safety of its application. 2nd. The difference that exists in its effect on different constitutions, showing the importance of a guarded use of it. 3rd. The remarkable disparity in the amount of suffering from the pains of labour which women experience when going through what is called "a natural labour," which proves the infinite value of this agent, not only in assuaging an amount of agony which overcomes the fortitude of women of the strongest resolution, but also in promoting their more rapid recovery. He mentioned, as the result of his own observation, that the nerves of sensation were first affected, and that pain may be relieved before chloroform acts on the brain, or impairs consciousness. The brain then becomes engaged, and mental power disturbed, causing giddiness, rambling, and ultimately sopor. At the same time, or nearly so, the reflex nerves manifest its influence. He did not wish to pass what he might call the first stage, the relief of pain, because he thought it quite sufficient for ordinary obstetric purposes. The profound stertorous sleep required for Surgical operations he did not think necessary in midwifery. He described the effect of chloroform on a patient when used in this way, and for this purpose preferred inhalation by the mouth alone, as being safer. Such use of this anæsthetic might be considered inefficient, because the patient still suffers some pain. He (Dr. Murphy) found it quite the contrary, because the pain is as nothing compared with what she otherwise would have endured, and her recovery is always rapid. She does not suffer from the exhaustion which follows a severe labour, rendering the patient restless, and obliging the Practitioner to employ opium to procure sleep. He looked upon chloroform, in this respect, as the most valuable assistant in the management of labour that has ever been discovered. The author alluded to the difference in the effect of chloroform on different constitutions. All women are not equally susceptible to its influence. With some, a few inhalations are sufficient to control all pain, and even put them to sleep; while others continue to inhale for a long time before they experience any relief. In these instances caution is necessary, which is very easily exercised if chloroform is given in the gradual manner stated. It is necessary to watch its action on the reflex nerves, and to withdraw the vapour when they become affected. He (Dr. Murphy) thought the respiration and action of the uterus especially should be attended to. It is of importance to watch for stertor during the sleep of the patient, and not to mistake the cause of the short and feeble pains. The uterus is not paralyzed, as has been supposed, but the aid which it receives from the reflex muscles is diminished. In this, as in the former case, the sound sleep which follows labour perfectly restores the patient. The third variety is rarely met with, and is very perplexing. He related a case where chloroform seemed to increase the pains, although in the intervals the patient was in a profound sleep. When stertor was observed he withdrew the vapour. The patient was safely delivered, slept for some time, awoke, and had no recollection of anything that occurred from the time she inhaled the chloroform. He attributed this effect to a kind of dream. What in other patients would cause incoherent rambling, here exaggerated the one idea, pain. The remarkable difference in the amount of suffering which women experience when going through natural labour proved the value of chloroform most clearly. Some suffer comparatively little; at no period of labour are the pains beyond their powers of endurance; chloroform is not therefore called for. But there are cases of a very opposite character, in which the patient is acutely sensitive, where even slight pains cause great distress, and where the more powerful pains become so intolerable, and cause such an amount of suffering, that the action of the uterus is often suspended. It is in such instances that the value of chloroform shines the most conspicuously, and it is here that the Practitioner will find its aid most clearly unquestionable. He concluded by apologizing for an imperfect paper. He avoided entering upon, or replying to, the objections offered to its use, not only because he had already fully examined them, but he was unwilling to make this valuable agent a kind of battle-field for the collision of strong and decided opinions. It was in the power of every one to arrive at a just conclusion from their own experience. He entreated those who would follow this rational mode of investigation not to be led away from it by "post hoc ergo propter hoc" arguments; not to believe that all the well-known casualties of labour are caused by chloroform, because this agent happens to be administered; not to take second-hand histories of its effect, but as the members of a highly scientific Profession are bound to do, to take nothing for granted, but examine and judge for themselves. He thought that there was nothing singular in the reception it has as yet met with in this great Metropolis. It took fifteen years before gaslight triumphed in London. The light shone conspicuously wherever it was introduced, but it only made more manifest the prejudices and apprehensions of the public. It was declared to be most offensive, most dangerous; houses were blown to atoms by explosions of the gas, and the event was recorded with all the avidity of a death from chloroform. Still it continued to be used by its advocates; they gradually increased; at length its use became general, explosions were only recorded as unfortunate accidents, and now gaslight has obtained its triumph. It gives not only light, but heat, it supplies the place of coals as well as candles, and every house in London considers this noisome and most dangerous agent an indispensable requisite. He (Dr. Murphy) anticipated from chloroform the same career. It is now under its trial, but as it becomes better understood will be more generally used, and ultimately become as indispensable in the lying-in apartment.

Dr. Snow read a paper, entitled,

FURTHER REMARKS ON THE CAUSE AND PREVENTION OF DEATH FROM CHLOROFORM.

He said, that he had pointed out on a former occasion, as a result of experiments on animals, that, when the vapour of chloroform was sufficiently diluted with air, it produced its effects very gradually, and, if continued till death took place, the breathing ceased first, while the circulation went on till it was arrested for want of the respiration, as in asphyxia; while, on the other hand, if, at any moment, the vapour were not sufficiently diluted, it was absorbed from the lungs and circulated through the coronary arteries in such quantity as to stop the action of the heart by its direct influence. He considered that all the accidents which had happened during the exhibition of chloroform had occurred in the latter way, and never from the Medical man mistaking the symptoms, and going on too long to administer chloroform sufficiently diluted with air. Dr. Black, of St. Bartholomew's Hospital, had, however, lately advanced the opinion, that the patient did not die from the pathological effects of chloroform, but died simply of asphyxia, before they were brought under its influence, owing to the respiratory movements being arrested, or impeded, by the pungency of the vapour, which had been administered in too concentrated a form at the commencement of the inhalation. He, Dr. Snow, considered this opinion incorrect for various reasons:—

1. The process of dying by asphyxia occupied from four to nine minutes, after the access of air to the lungs was completely cut off; but no Medical man could overlook the fact that his patient was not breathing, and persevere in preventing his doing so for this length of time.

2. In the greater number of cases of death from chloroform, the patient really inhaled the vapour, so as to be quite insensible from its effects, before the symptoms of danger set in. Out of 44 deaths from chloroform, 7 took place when the Surgeon was just about to begin the operation; 12 occurred during its performance; in 8 cases the operation, being of short duration, was completed before it was discovered that the patient had expired; and, in the remaining 17 cases, the inhalation was discontinued, at some period of its progress, owing to the sudden occurrence of alarming symptoms.

3. In every case in which the state of the pulse had been noticed at the time of the accident, it was found to cease suddenly and abruptly. This was totally different from what occurred in asphyxia, where the pulse retained its strength for some time, and then gradually diminished in frequency and force.

4. In twelve of the cases of death from chloroform, the

face was observed to become suddenly pale at the moment when symptoms of danger set in. This symptom was indicative of cardiac syncope, and was incompatible with asphyxia; it had probably occurred in many cases where it was not recorded.

5. In several of the cases in which death occurred during the performance of the operation, attention was first called to the patient's danger by the sudden stopping of the hæmorrhage: a symptom which also proved death by syncope, and not by asphyxia.

6. When animals are killed suddenly by chloroform, so as to imitate the accidents to the human subject, the blood is found to be of a florid colour in the lungs immediately after death.

7. Except sometimes in the case of children and lunatics, it is not the custom to restrain a patient, so long as he is conscious. If he complains of the pungency of the vapour, it is accommodated to his feelings; and, therefore, it is impossible that death should take place from the cause indicated by Dr. Black, unless in children and lunatics, to whom no accident from chloroform has yet happened.

8. The vapour of sulphuric ether was as pungent as that of chloroform, but accidents did not happen during its use.

A serious error, with regard to chloroform, was to suppose that the patient was safe so long as he had sufficient air for the purposes of respiration; the truth being, that the more air he breathed the greater was his danger, if the air were too highly charged with vapour. The air breathed by the patient should never contain more than about 5 per cent. of the vapour of chloroform; if it contained 8 or 10 per cent., it was liable to cause sudden death by suspending the action of the heart. He (Dr. Snow) recommended the use of an apparatus for regulating the quantity of vapour of chloroform in the air, but those who preferred to use a handkerchief, or sponge, might avoid the risk of danger, by diluting the chloroform with an equal measure of rectified spirit before using it. In case of accident, he considered the artificial respiration, very promptly and efficiently performed, afforded the best prospect of success.

Dr. Crisp complained that the President had not referred to the occurrence of death after a second inhalation of chloroform, and that Dr. Murphy had made no allusion to the influence of the vapour, when inhaled by the parturient mother, on the new-born child. Such influence he could not but believe must be highly deleterious; however administered, chloroform could never be depended upon, and its indiscriminate use in midwifery was greatly to be deprecated.

Mr. Henry Lee said he once tried, in a case which nearly terminated fatally, to produce artificial respiration, as mentioned by the President, but without success. In that case he believed there was a spasm of the glottis. He remembered another case, in which serious symptoms came on; but the patient recovered, then relapsed, and afterwards died, from the effects of the chloroform. He saw no reason why chloroform should not narcotize other nerves besides those of the heart, and so cause death.

Dr. Webster asked whether puerperal insanity often followed the administration of chloroform in labour, adding that, in a Lunatic Asylum at Edinburgh, that disease occurred in the only case where chloroform was administered in parturition. He had heard of several instances in which the children had suffered from the effects of the vapour. It should, he believed, never be used in trifling operations, nor even in capital, where there was any tendency to disease of the heart.

Mr. D. Méric recommended the example of Ricord, in having recourse to mouth-to-mouth inspiration and expiration, by which means, he said, several patients, who were on the point of suffocation, had been restored. He (Mr. De Méric) remembered a case in which a child was extracted by the forceps, the mother having taken chloroform largely, and was found to be dead. It was well known that the forceps was rarely the cause of death.

Dr. Crisp contrasted the success of Larrey in the last war; he having operated seventy or eighty times at the shoulder-joint, and nearly always successfully,—with the unfortunate results of Surgical operations in the Crimea. He did not say that these were attributable to chloroform, but he believed that that agent had more to do with the production of phlebitis, erysipelas, and other accidents after operation, than the Profession admitted.

Mr. Henry Smith said, that operations at the shoulder-joint were generally successful in civil, as well as in military, practice.

Dr. Bird said, he had conversed with several Army Surgeons, and had carefully examined the returns of the Army Medical Board; and he could confidently state, that the reason for the operations terminating so fatally in the French and English Crimean armies was the malarious state of the climate, and the defective nutrition of the soldiers during the last winter.

Mr. De Méric related a case in which he operated upon the toe of a man, who was in a very low and weak condition, but who, at his urgent request, was allowed to take chloroform. He recovered with great difficulty, and was in a somnolent state for two days after the operation; it was found that the toe was in a sphacelated condition, and the lymphatic vessels were inflamed from the toe to the groin.

The further discussion on the subject of the two papers was adjourned to the next meeting of the Society.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals, serving with the army in the Crimea, in forwarding his Weekly Report of Sick for the week ending the 5th January, states—

That the health of the army continues satisfactory, and the mortality, exclusive of the Land Transport Corps, very low indeed. There is an evident improvement in the health of the Land Transport Corps this week; and, from the judicious measures that have been adopted by Colonel Wetherall in its management, I think this will continue.

Catarrhal affections are now the most prominent class of diseases. Many of these are of a trifling character; but in some few instances, where there was organic disease of the lungs, death has ensued. Two, if not three, out of the limited number of deaths which have occurred in the regular army this week, may be justly ascribed, I regret to say, to the men's own imprudence.

Febrile complaints and bowel affections have greatly subsided, and only two deaths from the former, and three from the latter, took place in the whole army during the week; the remainder of the casualties in the list, under these heads, occurred in the Land Transport Corps; indeed, 14 out of the total number of deaths (29) which occurred, were in that corps alone, and 11 of these were from fever. A happy contrast this to the same week last year, when the deaths amounted to 218, and the number of bowel complaints to 2352, instead of 359, out of a force 20,733 less than it is now; a gratifying change in the sanitary condition of the army, the result of better arrangements and less duty. A large portion of the army is hutted this winter, and those that are not in huts have better tents than they had last winter, and many other comforts which were then unattainable.

The following is an abstract of the admissions and deaths under the leading heads of disease:—

	This Week.		Last Week.	
	Admitted.	Died.	Admitted.	Died.
Fevers	142	13	182	15
Head Affections	7	2	9	2
Chest ,,	259	7	279	—
Diarrhœa	88	1	117	3
Cholera	5	3	3	3
Dysentery	20	0	8	1
Rheumatism	50	—	44	2
Frostbite	35	1	98	—
Wounds and Injuries	51	1	72	4
Ophthalmia	26	0	37	—
Other diseases	392	1	425	6
	1095	29	1274	36

The ratio of admissions to strength has been, exclusive of the Land Transport, 2·11 per cent.; with the Land Transport, 2·12 per cent. Deaths to strength, exclusive of the Land Transport, 0·3 per cent.; with the Land Transport, 0·05. Sick to well, exclusive of the Land Transport, 6·52 per cent.; inclusive of the Land Transport, 6·28 per cent.

During the week ending 5th January, 1855, the admissions to strength were in the ratio of 9·44 per cent.; the deaths to strength, 0·73 per cent.; and the sick to well, 16·15 per cent.

TABLE showing the MORTALITY in LONDON for the YEAR 1855, and in each WEEK of the YEAR, the Several DISEASES, the AGES at DEATH, the DISTRICTS in which the DEATHS occurred, the DEATHS from SMALL-POX and TYPHUS in DISTRICTS, the OCCUPATIONS of the MALES aged 20 and upwards, the DEATHS in PUBLIC INSTITUTIONS, BIRTHS and DEATHS of MALES and FEMALES, the INCREASE of POPULATION, the BAROMETRICAL PRESSURE, and TEMPERATURE.

COMPILED BY MR. B. SMITH.

WEEKS ENDING	ZYMOTIC DISEASES.	OTHER DISEASES.																AGES AT DEATH FROM ALL CAUSES.					DISTRICTS.					DEATHS FROM SMALL-POX AND TYPHUS IN DISTRICTS.									
		Dropsy, Cancer, and others of uncertain seat.	Tubercular Class.	Of Brain, Nerves, etc.	Of Heart, etc.	Of Respiratory Organs.	Of Digestive Organs.	Of Kidneys, etc.	Of Uterus, Puerperal Disease, etc.	Of Joints, Bones: Rheumatism, etc.	Of Skin, etc.	Malformations.	Debility from Premature Birth, etc.	Atrophy.	Age.	Sudden.	Violence, Privation, etc.	Causes not specified.	0 to 20	20 to 40	40 to 60	60 to 80	80 and upwards.	West.	North.	Central.	East.	South.	West.		North.		Central.		East.		South.	
																							Popn. 376427	Popn. 490396	Popn. 393256	Popn. 485522	Popn. 616635	Sm. P.	Ty.	Sm. P.	Ty.	Sm. P.	Ty.	Sm. P.	Ty.	Sm. P.	Ty.
JANUARY 6	335	64	202	136	50	319	83	14	12	9	5	1	38	53	53	4	23	3	692	193	213	246	60	221	276	208	327	372	...	7	10	7	3	6	12	13	11	16
,, 13	300	63	207	137	64	373	75	13	7	11	2	7	37	47	71	3	29	20	680	193	226	288	63	207	298	255	315	391	...	9	8	12	1	3	3	11	7	12
,, 20	361	58	240	154	53	386	79	12	6	7	3	7	36	41	78	11	15	2	720	234	224	295	75	234	353	239	314	409	...	9	11	12	3	8	2	8	8	11
,, 27	279	12	83	76	8	133	23	3	...	1	2	3	30	33	...	8	15	5	711	205	289	347	77	252	328	265	335	450	1	5	7	7	1	3	8	13	10	16
FEBRUARY 3	253	17	72	67	2	148	31	...	...	3	2	4	44	32	...	4	37	54	718	207	255	300	74	254	344	260	339	407	1	8	12	11	5	4	10	7	7	13
,, 10	250	7	72	60	3	140	24	2	...	1	...	5	53	20	...	11	16	3	665	210	252	322	95	249	291	229	343	434	2	8	5	7	4	6	10	16	7	6
,, 17	234	4	83	64	6	132	27	...	...	4	1	4	45	28	...	8	14	5	658	198	255	302	62	238	312	257	303	365	1	10	7	8	7	8	10	8	8	12
,, 24	222	6	102	61	9	123	24	1	...	...	...	5	33	31	...	2	28	5	648	212	289	380	71	273	335	236	307	453	5	3	7	6	4	7	8	9	7	10
MARCH 3	263	43	234	151	63	433	83	18	10	7	3	1	34	50	92	11	40	24	638	199	261	362	78	247	328	240	322	423	3	4	7	2	0	7	4	11	3	13
,, 10	205	9	93	63	4	114	36	...	...	1	1	4	18	28	...	10	33	25	621	170	235	266	66	206	280	214	303	374	1	5	6	4	2	7	6	15	8	10
,, 17	200	7	102	72	2	146	29	2	...	3	...	3	37	38	...	11	27	32	684	183	230	250	51	235	292	230	307	361	3	2	9	7	4	5	4	9	3	17
,, 24	262	50	242	126	62	285	77	15	9	5	3	4	36	41	58	23	77	8	658	219	216	234	49	212	318	223	284	346	4	11	5	4	2	5	2	12	3	17
,, 31	251	64	246	157	74	303	71	13	8	17	2	7	40	42	56	74	172	7	758	237	280	284	45	258	290	267	324	465	1	9	1	6	1	5	7	15	1	14
APRIL 7	257	48	223	108	34	286	66	9	12	4	...	6	26	41	55	7	41	3	614	162	201	199	50	195	245	207	259	320	1	7	7	3	2	4	6	6	5	16
,, 14	238	54	243	157	70	282	70	19	13	11	1	4	43	34	55	5	39	9	638	185	224	233	60	200	287	195	265	400	...	9	6	7	2	3	5	11	3	14
,, 21	201	42	192	119	41	222	68	10	6	7	1	...	36	44	53	8	26	11	540	143	167	175	52	177	212	179	233	286	3	6	4	6	3	3	1	9	8	9
,, 28	227	50	246	108	36	190	70	17	7	9	2	9	25	37	56	5	40	4	543	158	181	194	56	168	224	181	234	325	4	3	9	3	6	9	6	7	5	8
MAY 5	214	53	229	131	49	219	80	9	14	10	3	5	31	37	48	7	43	3	575	205	166	200	39	192	245	169	258	321	1	4	4	9	2	4	6	13	2	15
,, 12	210	41	244	133	45	225	63	23	14	8	3	6	24	52	56	4	27	6	561	184	198	191	49	191	256	175	241	320	1	7	9	7	3	2	7	8	8	14
,, 19	220	51	230	137	47	185	64	16	12	12	2	3	30	29	32	15	38	19	555	178	181	185	28	180	262	150	267	284	1	5	18	6	3	5	14	5	9	10
,, 26	246	48	232	119	46	194	75	17	9	14	4	3	36	40	45	5	33	21	576	154	206	199	35	177	245	194	265	306	2	5	8	6	4	3	5	17	10	12
JUNE 2	218	35	228	129	46	190	52	17	9	10	3	4	24	35	41	3	26	3	530	178	159	174	32	162	223	143	209	336	4	5	9	6	2	6	3	13	6	9
,, 9	235	48	200	140	45	152	72	15	9	11	2	6	30	26	33	10	36	17	515	171	172	188	25	171	222	174	224	296	3	7	8	9	2	6	2	8	7	13
,, 16	207	38	214	104	33	132	63	11	4	7	2	7	33	34	35	15	59	1	485	170	162	155	27	149	193	177	209	271	3	6	8	4	4	5	5	11	7	7
,, 23	247	38	221	125	42	138	48	14	11	12	4	5	29	34	31	17	53	6	522	175	196	143	34	155	200	195	224	301	3	3	7	7	8	7	6	10	4	20
,, 30	212	37	220	138	72	137	70	6	12	7	2	4	30	45	31	50	158	42	579	212	220	197	26	178	244	231	243	377	3	1	7	7	3	4	6	13	5	18
JULY 7	239	41	190	109	36	108	58	10	9	9	7	6	22	23	35	2	17	5	450	140	167	138	29	155	178	138	188	267	...	8	6	7	1	6	6	11	9	23
,, 14	222	51	188	118	40	94	59	15	7	10	2	4	28	41	28	2	18	14	473	116	165	138	37	131	186	153	204	267	1	5	2	9	2	7	7	10	6	18
,, 21	229	45	204	92	30	90	57	18	14	8	2	2	33	33	23	3	19	13	462	150	151	119	23	132	170	126	202	285	2	4	2	6	1	8	2	6	3	13
,, 28	285	48	204	121	26	82	71	13	7	10	2	3	35	57	29	6	35	2	566	162	138	141	29	143	205	154	249	285	...	6	2	6	1	8	5	16	5	17
AUGUST 4	301	51	168	95	38	83	65	11	10	7	2	1	31	56	26	...	17	1	552	122	132	137	20	152	179	153	215	264	1	3	5	6	3	7	6	12	5	11
,, 11	314	50	157	105	34	81	72	9	7	6	1	3	29	56	31	4	31	3	551	145	120	146	31	155	200	174	194	270	1	2	3	8	2	7	1	8	2	23
,, 18	344	41	186	125	31	101	74	9	9	9	6	2	36	48	41	5	28	...	623	144	132	159	37	168	224	174	263	266	...	7	2	9	4	11	6	5	3	19
,, 25	303	40	167	105	37	88	68	12	12	6	4	4	25	46	31	3	41	11	558	137	113	151	35	163	215	155	209	261	2	8	1	8	2	3	1	2	6	21
SEPT. 1	317	49	192	117	34	100	55	8	9	3	2	5	29	46	31	5	28	1	559	140	157	156	19	137	241	165	238	249	...	7	8	10	3	5	1	8	3	15
,, 8	292	59	189	106	40	88	58	10	3	8	5	3	36	41	33	7	36	1	569	126	158	128	34	146	209	159	223	278	...	8	1	14	3	7	3	13	7	19
,, 15	288	56	171	111	43	90	56	6	15	4	3	1	27	40	45	7	52	18	512	142	169	158	40	155	219	175	226	258	...	7	3	12	1	10	8	15	8	13
,, 22	253	43	158	100	48	88	55	14	6	5	3	4	23	45	33	10	25	18	485	126	139	143	25	123	179	150	239	240	...	7	1	15	1	9	2	20	7	9
,, 29	274	41	181	121	38	109	51	9	10	6	1	...	34	34	30	50	164	7	598	194	186	156	26	127	235	180	271	347	1	5	6	15	3	10	2	12	5	8
OCTOBER 6	260	45	165	90	30	107	59	13	13	6	2	5	36	31	41	5	24	19	487	132	159	128	36	162	187	158	210	234	1	8	3	10	4	12	7	13	5	11
,, 13	223	34	157	94	42	110	47	13	7	1	3	3	30	28	23	5	27	23	449	131	124	124	22	140	190	154	161	225	2	7	3	10	5	5	3	9	3	11
,, 20	242	51	159	103	43	114	54	10	8	9	3	2	29	36	35	2	19	8	463	154	150	129	25	143	161	160	210	253	2	6	2	4	...	7	7	15	5	11
,, 27	219	50	167	112	40	122	47	12	11	10	2	1	12	28	35	2	30	3	437	129	155	158	24	155	189	145	199	215	1	9	1	16	...	5	3	9	5	10
NOVEMBER 3	227	41	163	88	35	140	48	9	7	7	1	3	25	25	28	14	54	4	457	149	135	153	22	171	177	133	204	234	...	8	6	11	...	9	3	10	5	11
,, 10	217	54	157	131	41	157	52	11	10	6	...	2	29	34	47	6	31	1	499	120	156	175	36	149	204	148	216	269	1	6	3	8	...	5	3	9	2	12
,, 17	227	49	170	109	39	171	43	12	7	11	1	3	30	30	37	13	22	1	477	142	156	167	32	154	204	151	207	259	...	9	7	12	1	8	2	5	4	11
,, 24	244	55	166	116	53	205	53	7	7	9	4	2	26	37	44	10	34	1	524	171	164	177	37	136	255	164	230	288	1	9	5	11	...	7	2	16	4	11
DECEMBER 1	207	47	197	139	53	234	49	18	12	10	6	5	25	34	44	8	24	12	517	185	175	198	39	170	233	190	222	309	...	5	2	5	2	3	2	7	4	7
,, 8	239	44	182	128	52	242	54	11	11	7	1	5	29	26	35	11	22	...	545	153	167	201	33	169	204	180	263	283	...	10	3	9	2	5	7	13	2	8
,, 15	246	44	201	125	54	267	70	20	8	11	5	4	27	38	54	31	49	17	574	182	241	202	60	164	248	193	332	334	3	5	2	7	1	4	1	18	7	11
,, 22	257	45	173	146	33	293	60	10	13	8	6	8	28	27	50	25	73	2	558	169	235	251	44	179	243	223	292	320	1	6	4	10	...	5	3	26	3	18
,, 29	271	61	176	136	64	348	68	15	9	5	5	2	31	33	64	31	123	43	625	207	242	308	61	220	309	215	333	408	3	8	2	8	2	3	5	12	5	19
Total 1855	13528	2591	10456	6518	2394	11114	3286	678	476	429	146	200	1631	2038	2468	652	2335	566	29654	8803	9844	10550	2235	9380	12547	9764	13254	16561	74	332	284	419	125	311	256	578	285	692

WEEKS ENDING	OCCUPATIONS OF MALES AGED 20 YEARS AND UPWARDS.																DEATHS IN PUBLIC INSTITUTIONS.					BIRTHS.		DEATHS.		TOTAL BIRTHS.	TOTAL DEATHS.	BIRTHS over DEATHS.	MEAN HEIGHT OF BAROMETER.	THERMOMETER.	Difference between the Temperature of the Week, and the same Week on an Average of 7 Years.
	Persons engaged in the general or local Government of the Country.	Persons engaged in the Defence of the Country.	Persons in the Learned Professions, with their subordinates.	Persons engaged in Literature, Fine Arts, and Science.	Persons returned only as Children or Relatives.	Persons engaged in entertaining, clothing, and performing personal offices for man.	Persons who buy, or sell, keep, let, or lend Money, Houses, or Goods of various kinds.	Persons engaged in the Conveyance of Men, Animals, Goods, and Messages.	Persons possessing or working the Land, and engaged in growing Grain, Fruits, Grasses, Animals, and other Products.	Persons engaged about Animals.	Persons engaged in Art and Mechanic Productions.	Persons working and dealing in Animal Substances.	Persons working and dealing in Vegetable Substances.	Persons working and dealing in Minerals.	Labourers and others, branch of Labour undefined.	Persons of Rank or Property not returned under any Office or Occupation.	Persons supported by the community, and of no specified Occupation.	Workhouses.	General Hospitals.	Hospitals for Special Diseases.	Lying-in Hospitals.	Lunatic Asylums.	Male.	Female.	Male.	Female.						
	Popn. 18960	Popn. 17946	Popn. 21782	Popn 8881	Popn. 3160	Popn. 88176	Popn. 35984	Popn. 61055	Popn. 13348	Ppo 8810	Popn. 114476	Popn. 40004	Popn. 86110	Popn. 47058	Popn. 45240	Popn. 7818	Popn. 2390														
JANUARY 6	6	18	6	...	...	42	14	44	6	4	48	16	33	19	20	16	...	166	52	6	2	11	908	879	671	733	1787	1404	383	30·052	46·0	+9·5
,, 13	12	16	6	4	2	41	17	50	8	...	56	22	42	30	27	9	3	182	37	8	...	10	881	825	743	723	1706	1466	240	30·362	39·3	+4·1
,, 20	9	19	5	7	1	51	20	52	8	4	66	21	45	22	31	10	2	183	56	11	2	14	779	735	763	786	1514	1549	−35	30·011	28·9	−7·3
,, 27	13	18	9	1	2	49	24	52	13	4	69	29	47	39	24	14	8	195	64	3	...	16	830	822	791	839	1652	1630	22	29·829	29·3	−7·7
FEBRUARY 3	8	20	11	4	...	45	19	42	14	2	70	23	39	24	30	11	...	205	76	12	...	10	845	803	803	801	1648	1604	44	29·619	29·3	−8·3
,, 10	9	24	10	2	...	67	13	59	14	6	60	20	48	32	20	19	1	169	63	10	...	30	934	898	764	782	1832	1546	286	29·511	30·9	−7·3
,, 17	9	21	13	5	...	49	19	52	10	5	73	33	46	29	32	12	1	180	60	6	5	7	903	912	741	734	1815	1475	340	29·518	25·4	−13·3
,, 24	7	24	12	2	1	68	18	55	11	5	78	26	46	33	41	13	12	260	66	5	...	15	916	874	791	813	1790	1604	186	29·779	26·7	−12·7
MARCH 3	10	29	11	3	...	54	17	48	13	1	59	16	56	33	26	19	...	244	42	6	2	9	838	888	748	812	1726	1560	166	29·358	40·8	+1·0
,, 10	7	20	9	2	...	42	12	43	6	4	65	16	37	28	25	11	...	183	64	8	3	9	971	949	679	698	1920	1377	543	29·732	36·0	−4·0
,, 17	9	9	9	3	2	42	17	44	8	5	66	24	50	29	25	17	...	168	71	11	...	9	906	873	727	698	1779	1425	354	29·339	38·5	−2·8
,, 24	10	25	5	1	1	46	24	38	11	4	57	25	32	28	18	7	7	184	72	10	2	7	800	758	701	682	1558	1383	175	29·300	38·2	−3·9
,, 31	10	20	6	9	1	58	23	57	13	4	71	14	32	47	46	13	1	219	101	8	2	19	1021	1078	842	762	2099	1604	495	29·940	36·5	−6·5
APRIL 7	6	15	17	...	...	40	12	48	3	..	51	17	31	16	16	11	2	132	39	4	3	2	828	689	618	608	1517	1226	291	29·881	41·9	−2·2
,, 14	12	25	7	4	...	44	14	49	11	3	53	23	38	28	22	11	...	132	70	8	1	10	912	806	715	632	1718	1347	371	29·519	47·2	+2·1
,, 21	3	9	7	5	1	29	7	29	6	4	54	19	35	16	13	12	1	113	44	7	1	9	916	872	545	642	1788	1087	701	30·148	49·1	+2·6
,, 28	10	16	4	1	1	41	13	33	7	4	43	14	37	27	16	14	4	135	52	5	3	11	892	864	581	551	1756	1132	624	30·140	44·0	−4·5
MAY 5	6	17	6	5	1	45	18	40	4	...	44	13	41	31	13	10	2	103	73	4	...	13	845	779	597	588	1624	1185	439	29·844	44·0	−7·0
,, 12	9	10	7	5	2	46	15	42	7	7	65	15	35	22	20	13	...	123	80	12	2	5	909	769	616	567	1678	1183	495	29·636	47·6	−4·4
,, 19	11	13	9	2	...	53	20	42	3	4	59	11	28	21	11	9	...	103	48	17	...	5	820	836	620	523	1656	1143	513	29·659	46·0	−6·5
,, 26	16	23	3	3	1	30	20	34	3	3	51	13	47	16	19	9	...	114	38	7	1	4	855	767	600	587	1622	1187	435	29·701	55·4	+0·9
JUNE 2	9	18	4	1	2	27	17	23	9	5	59	12	37	23	11	10	1	107	47	5	...	10	714	688	542	531	1402	1073	329	29·692	49·4	−6·8
,, 9	8	13	9	3	...	39	8	33	9	5	41	18	30	25	19	11	...	92	67	10	...	11	870	840	565	522	1710	1087	623	29·779	58·5	+1·0
,, 16	6	17	8	6	2	21	17	29	9	5	48	12	37	20	22	6	3	101	42	6	...	10	718	756	529	470	1474	999	475	29·619	55·5	−3·4
,, 23	5	14	13	1	1	30	17	30	3	2	42	15	34	31	19	17	...	102	63	7	...	7	882	869	548	527	1751	1075	676	30·031	52·9	−7·1
,, 30	8	19	9	7	1	33	11	52	11	8	60	19	39	32	36	9	1	104	96	8	...	5	879	853	669	604	1732	1273	459	30·048	63·0	+1·8
JULY 7	3	17	8	4	1	26	13	19	9	3	52	9	40	28	15	13	...	95	58	5	1	5	680	676	493	433	1356	926	430	29·995	62·9	+0·8
,, 14	3	13	6	2	1	24	14	22	10	3	39	14	38	20	11	11	...	101	41	9	1	7	679	691	515	426	1370	941	429	29·649	64·5	+2·8
,, 21	2	18	7	5	2	33	11	28	7	2	47	12	28	13	16	10	...	92	49	8	1	7	798	724	476	439	1522	915	607	29·739	59·6	−2·4
,, 28	9	17	5	1	...	38	9	25	6	1	39	11	41	17	19	13	...	107	62	3	...	8	726	677	576	460	1403	1036	367	29·731	61·3	−0·7
AUGUST 4	6	11	4	3	1	25	7	24	2	3	28	13	25	16	12	12	...	83	51	12	2	5	880	798	473	490	1678	963	715	29·691	62·5	+0·3
,, 11	8	13	6	2	1	27	7	18	4	3	28	6	25	16	15	11	1	85	43	8	1	10	833	750	482	511	1583	993	590	29·825	61·0	−0·7
,, 18	6	13	7	...	...	27	17	37	3	5	40	11	26	8	12	6	...	115	39	5	1	7	872	825	550	545	1697	1095	602	30·099	62·5	+1·2
,, 25	9	15	6	2	...	19	8	31	8	1	34	7	28	12	14	9	...	66	61	6	2	10	755	785	476	527	1540	1003	537	29·758	62·9	+2·6
SEPT. 1	10	17	8	4	2	22	12	29	7	1	47	15	27	10	12	5	...	98	40	8	1	7	840	831	520	511	1671	1031	640	29·979	61·4	+2·1
,, 8	9	17	7	3	...	34	16	26	4	1	38	11	20	19	17	14	...	92	48	11	2	3	803	774	551	464	1577	1015	562	30·069	55·7	−2·5
,, 15	7	12	12	4	...	30	14	30	5	4	44	7	38	17	19	13	1	85	52	7	...	11	816	734	523	510	1550	1033	517	29·943	56·0	−1·0
,, 22	4	16	1	6	1	17	21	27	4	2	39	15	21	16	16	10	...	84	38	8	1	9	841	817	466	465	1658	931	727	29·984	59·6	+3·8
,, 29	7	17	8	2	...	41	18	36	6	4	48	15	36	22	37	15	6	86	57	15	1	5	894	813	624	536	1707	1160	547	29·919	56·6	+2·2
OCTOBER 6	7	16	4	2	1	30	10	25	3	4	45	9	28	15	14	10	...	86	41	6	2	5	715	730	484	467	1445	951	494	29·343	56·2	+3·4
,, 13	7	15	7	2	...	20	10	21	5	3	32	11	21	14	16	7	3	68	32	9	1	4	793	771	440	430	1564	870	694	29·443	52·2	+0·9
,, 20	6	12	5	1	...	36	10	33	4	...	47	11	32	21	11	6	...	77	59	8	2	5	915	810	480	447	1725	927	798	29·684	50·1	+0·4
,, 27	7	9	6	3	...	34	12	25	1	2	31	10	25	25	16	9	...	76	59	15	1	5	737	790	462	441	1527	903	624	29·677	50·2	+2·1
NOVEMBER 3	5	19	4	2	...	33	9	33	7	3	43	9	27	17	18	8	...	76	52	15	8	4	671	675	451	468	1346	919	427	29·412	42·8	−3·8
,, 10	11	8	7	2	1	30	12	37	2	3	41	11	18	19	18	9	...	90	55	8	1	7	896	818	473	513	1714	986	728	29·791	46·0	+1·0
,, 17	13	22	5	1	...	28	15	43	3	2	30	14	29	18	15	15	...	92	58	10	2	7	855	785	527	448	1640	975	665	30·006	41·4	−1·8
,, 24	8	11	5	3	2	52	9	33	5	2	38	15	41	13	13	12	2	105	35	14	...	8	828	786	547	526	1614	1073	541	29·812	39·4	−2·6
DECEMBER 1	8	19	8	4	...	27	13	32	7	...	58	14	36	18	17	12	2	113	62	9	...	10	828	787	547	577	1615	1124	491	29·969	39·5	−2·3
,, 8	3	9	3	4	1	33	13	35	6	...	36	11	31	17	14	11	...	97	38	8	2	9	780	751	554	545	1531	1099	432	29·564	36·1	−5·1
,, 15	12	20	11	2	...	32	22	37	9	4	62	17	42	21	31	11	1	156	54	9	2	11	781	791	627	644	1572	1271	301	29·874	32·7	−7·6
,, 22	11	21	6	2	1	40	17	37	9	5	58	19	38	27	22	15	1	149	73	13	1	13	759	763	634	623	1522	1257	265	29·939	28·2	−10·8
,, 29	15	24	11	1	1	47	20	48	15	6	83	22	52	28	43	8	2	148	101	7	...	10	805	758	743	742	1563	1485	78	29·477	44·8	+7·2
Total 1855	424	868	382	153	38	1937	765	1992	371	165	2655	805	1835	1168	1065	588	68	6552	2956	441	65	456	43352	41592	31203	30303	84944	61506	23438	...	...	...
Total 1854	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	42927	41757	37178	36519	84684	73697	10987			

MEDICAL NEWS.

A motion was made in the Court of Queen's Bench on Wednesday for a criminal information against Henry Frederick Hodgson, for forging a diploma of the Royal College of Surgeons of England. The Court was of opinion that it was a fit case for prosecution, but not for judicial interference in the first instance by criminal information.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 17, 1856:—

Whitmore, John, 125, Oxford-street.
Simms, Frederick, 10, Tonbridge-place.
Leonard, Charles, Dursley, Gloucestershire.
Greenwood, John William, Orsett, Yorkshire.

DEATHS.

Ferguson.—January 18, at Monkwearmouth, aged 62, Charles Ferguson, Esq., F.R.C.S.E. (Nom.), 1844; M.R.C.S.E., 1813; Consulting-Surgeon to the Sunderland Infirmary.

Flewitt.—January 26, only seven days after his arrival from the East, where he had been engaged as Hospital dresser, Mr. John Alexander Flewitt, in the 20th year of his age.

Hills.—January 27, after a few days' illness, at 1, City-terrace, City-road, Dr. Robert Hills, deeply lamented. M.D. Erlangen (by exam.) 1838; M.R.C.S.E. 1838; L.S.A. 1839; Fellow of the Royal Medical Botanical Society. Author of "Wife and Mother's Guide;" "Pathology and Treatment of Abortion," etc.

La Beaume.—January 25, at 9, Regent-square, Michael la Beaume, Esq., Medical Galvanist to the Queen, in his 78th year.

Long.—January 22, at Barham, near Canterbury, Edward Long, Esq., M.D., aged 35, late of Downham Market.

Monro.—January 25, Dr. Monro, senior, late of Harley-street, Cavendish-square, and Bushy, Herts, in the 67th year of his age.

Pope.—January 24, at Higham Ferrers, Northamptonshire, William Havens Pope, Esq., Surgeon, aged 48. L.S.A. 1828.

Parkinson.—January 19, at the Doncaster Dispensary, aged 52, John Parkinson, Esq., Surgeon. L.S.A., 1826; Medical Officer of the Doncaster Dispensary.

APPOINTMENTS.

Hull General Infirmary.—Mr. William H. Eagland, of Leeds, has been elected Resident House-Surgeon.

Morpeth Union.—Dr. Jebling has been elected Medical Officer for the District, *vice* Mr. M. Brumell, resigned, to whom a handsome acknowledgment of six years' service was tendered.

Mr. Lionel J. Beale has been appointed Medical Officer of Health for the parish of St. Martin's-in-the-Fields.

BEQUESTS.

Daniel Grant, merchant of Manchester, has bequeathed £500 to the Manchester Infirmary; £200 to the Manchester Lying-in Hospital; £200 to the Manchester Eye Institution; and £100 to the Birmingham Dispensary.

Paddington Board of Works.—The Medical referees have nominated, for the selection of the Vestry, the five following gentlemen from whom to choose the Paddington Officers of Health, viz.,—Mr. P. H. Bird, Dr. Graily Hewitt, Dr. Holland, Dr. Handfield Jones, Dr. Sanderson. But we learn that a certain part of the Vestry have declared their intention to persist in putting forward a candidate of their own, in defiance of all due sense of propriety and justice.

Cheltenham Hospital.—Madame and M. Goldschmidt have made a donation of 40 guineas to this institution.

East India Civil Service.—Dr. James Steele, Superintending-Surgeon at Gwalior, is about to retire from the Service, to which he was appointed in 1828, and considerable speculation is said to be afloat as to his successor.

The Royal Institution.—The first Friday evening meeting of the Royal Institution, for the present year, took place on Friday, the 25th ult., when a lecture was delivered by Mr. Grove, on the Inferences to be drawn from the Negation of Perpetual Motion. The address consisted of a very profound and elaborate argument against the theory of perpetual motion, and in support of the necessity of a perpetuity of force; and illustrations were drawn from mechanics, electricity, and galvanism in favour of the lecturer's views. The chair was occupied by Sir B. Brodie, and among the audience there were, as is usual at these meetings, some of the most distinguished *savans* of the day.

Pay of Acting Assistant-Surgeons.—A warrant has been issued from the office of the Director-General, stating that the pay of all Acting Assistant-Surgeons, which has hitherto been 10s. a-day, is to be increased to 11s. 6d.; and that the order for the sum of £40, which was to have been given to each at the end of two years' service, is forthwith to be cancelled, in consideration of such increased pay. By the former warrant, the £40 was only to have been given to such as had passed some of their time on foreign service, but the present warrant makes no distinction.

Dr. Martin-Solon, a Physician of talent and reputation, died near Paris a fortnight ago. He was in very reduced circumstances, and his death was partly owing to this. He was a member of the Académie de Médecine, a Physician to one of the Hospitals of Paris, and the author of many publications, one of which, "A Treatise on Albuminaria," is highly esteemed.

The Academie des Sciences held its annual meeting today, the 28th January. Prizes and rewards were distributed, and M. Flourens read an interesting "Memoir of Leopold de Buch," a well-known geologist.

Dr. Brown-Sequard has been presented by the Académie des Sciences of Paris, with the prize of "Experimental Physiology," for his researches on the "Physiology of the Spinal Cord."

Presentation of a Portrait to Mr. Webber, of Norwich.—This event took place on Saturday, the 26th ult. at the Swan Hotel, Norwich. The chair was filled by Sir Samuel Bignold, and after the presentation of the portrait a dinner took place, at which between fifty and sixty gentlemen assembled. There lay on the table a large pile of letters from noblemen and gentlemen, many of them from the most eminent Medical Practitioners of the Metropolis, expressive of their great regret at being prevented from attending the meeting as they had fully intended, in order, as they one and all observed, to do honour to one who so richly deserved it. Mr. Webber alluded to the coolness with which he had, at his first residence in Norwich, been received by the Profession of that city, and contradicted the rumour that he had disposed of his practice and had removed elsewhere.

The Court of Queen's Bench has delivered judgment in favour of a *certiorarie* to remove the trial of William Palmer from the assizes at Stafford.

Chorlton-on-Medlock Dispensary.—At the annual meeting of the trustees of the above charity, the Chairman read the report, from which it appeared that the number of patients the previous year was 2854, during the present year 2953, being an increase of 99. This indicates a small increase in the amount of benefit conferred, but no criterion of change in the healthiness of the district; for a review of reports issued during the last fifteen years justifies our belief in the better condition of the poor population generally. As observed at the last annual meeting, much is to be ascribed to new sanitary regulations, public lectures on health, and the interest which the poor themselves have been induced to take in their physical and moral condition by the increased cleanliness of their persons and dwellings. The subscribers are reminded of the very great advantages which have resulted from the vigilant enforcement of the rules for the exclusion of all improper patients. This is a great improvement in the economy and real beneficence of the institution. From the statement of accounts it appeared that, including the balance in hand at the commencement of last year, the total income had been £520 9s. 3d. For drugs, salaries, and various other expenses, there had been paid £498 11s., and there was a balance, to commence the present year with, of £67. The officers of the institution were re-elected, and thanks were voted to them for their services.

CONCEALMENT OF PREGNANCY.—The High Court of Justiciary of Edinburgh have decided that the disclosure of pregnancy to the reputed father is a sufficient answer to the charge of concealment.

THE LATE MR. DYCE SOMBRE'S WILL.—On Saturday, in the Prerogative Court, Sir J. Dodson pronounced against the validity of the will and codicil, and condemned the executors and the East India Company in the costs. Administration was decreed to Mrs. D. Sombre.

ROYAL JENNERIAN AND LONDON VACCINE INSTITUTION.—The annual meeting of friends and subscribers to this Institution was held last week at the Freemason's Tavern. The Auditor's Report exhibited a total of receipts during the year of 287*l.* 12s. 8½d., with a balance in the hands of the Treasurer of 18*l.* 11s. 7d. The Report stated, that there had been an increase in the number of applicants for vaccination, and that the number of vaccinations actually accomplished was 4191. The original impression of the Board that vaccination by legislation was an evil, had been more and more confirmed by experience, and more especially by the facts developed in a return obtained from the Registrar-General of Births and Deaths, by which it appeared that the number of deaths from small-pox in England and Wales, including London, was in the year 1848, 6903; in 1849, 4645; 1850, 4666; 1851, 6997; and in 1852, 7320. In London itself, according to the same return, the number of deaths from small-pox, in 1848, was 1620; in 1849, 521; in 1850, 499; in 1851, 1062; and in 1852, 1159. Of the 1062 deaths in 1851, 91 were described as having occurred after vaccination, and 664 without vaccination; the remaining 307 being merely ascribed to small-pox, without reference to vaccination at all. It was quite plain from these figures that the mortality from small-pox had not declined in consequence of Legislative interference with vaccination, and the Report went on at great length to argue that compulsory vaccination was "an injurious agency, developing false security;" and alleging in support of this conclusion, the facts that the parents of a newly-vaccinated child were required by the Act to apply for a certificate on the eighth day, when it was impossible to know whether vaccination had taken effect, so as to protect the child.

USE OF ARSENIC IN THE MANUFACTURE OF CANDLES.—At a meeting of the Society of Arts on Wednesday, Mr. G. F. Wilson, of the Belmont Works, Vauxhall, said:—On the subject of the admixture of arsenic in the candles, he trusted that the belief in its use had long since passed away, but knowing how long an erroneous impression often clung to the public mind, he might be allowed to mention that, if ever the use of arsenic had been necessary, the necessity had now passed away. When composite candles first came to be manufactured, the stearine was run into the moulds at a very high temperature (240°F.), and then, perhaps, a little arsenic might have been put in to hasten the hardening, and prevent crystallization; but now the composition melted at so low a temperature that coagulation took place at once, and no chemical aid whatever was necessary. (Hear, hear.) At present, there was no more necessity for the aid of arsenic in making composite, than there was in the case of ordinary tallow candles.

THE LATE MYSTERIOUS POISONINGS.—On Monday, at the close of a lecture at the Philosophical Institution, Bristol, Mr. William Herapath, the Professor of Toxicology at the Bristol Medical School, took the opportunity of alluding to the state of alarm which had been produced in the public mind by the recent alleged secret poisonings at Rugeley, Manchester, and elsewhere. He said the apprehensions which the cases to which he referred had given rise to, had been much increased by certain statements which had been put forth, and which, as he understood them, were these:—That prussic acid could not be discovered in the system at more than fourteen days; that strychnine could only be detected within a few hours after death; and that *cocculus indicus* could not be detected at all. Now he had himself, in a case which had been published, detected the presence of prussic acid in a human being after the body had been buried for two months; he had found *cocculus indicus* in beer, in dead fishes, and in a human body after it had been buried ten months. The difficulties in the way of detecting poisons of this class were not, therefore, so insurmountable as some supposed; and he hoped that the knowledge of that fact might have the effect of reassuring the public mind.

THE SMOKE NUISANCE.—The Clerkenwell court was crowded by the inhabitants of the neighbourhood of Islington and Camden-town, to hear the charges preferred against the manufacturers and others carrying on business at Belle-isle and Agar-town, with unlawfully using a certain furnace not constructed so as to consume its own smoke. Mr. Corrie said that the Act for the Consumption of Smoke was passed in 1853, and it was not until twelve months afterwards that the first proceedings under its provisions were taken, thus allowing ample time for the manufacturers to comply with the Act. There could not be the slightest doubt of the good the Act had done; for the Thames, which at one time was covered with smoke of the blackest description, was now comparatively clear. Three of the defendants were fined severally £5 and 2s. costs.

OLD AGE.—Said-Effendi, jester to the Sultan, and who has held the same post under four Ottoman Emperors, has just died at the age of 120 years and 7 months. Notwithstanding his extreme age he retained, it is said, the use of all his faculties to the last. He has been sometimes heard to relate anecdotes connected with facts of such an old date that persons were at a loss how to believe his assertions.

MORTALITY NOTABILIA.—The health of London is now in a more satisfactory state than it has been usually at this period of the year. In the week that ended on Saturday 1029 deaths, of which 500 were those of males and 529 those of females, were registered. In the ten corresponding weeks of the years 1846-55 the average number was 1165, which if raised in proportion to increase of population becomes 1282. The deaths in the present return are less than the corrected average by 253.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending January 26:—

	Males.	Females.	Total.
Workhouses	73	77	150
Prisons	..	..	..
Military and Naval Asylums ..	3	..	3
General Hospitals	28	17	45
Hospitals for Special Diseases ..	6	9	15
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	3	..	3
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	4	4	8

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, January 26, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, January 26, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 44·5						° 38·5
ALL CAUSES	1029	457	144	174	203	51	1165·1
SPECIFIED CAUSES	1027	455	144	174	203	51	1154·3
DISEASES:—							
1. Zymotic Class	222	165	22	19	13	3	237·4
2. Dropsy, Cancer, and others of uncertain seat	43	8	5	13	15	2	49·0
3. Tubercular Class	153	58	56	32	7	..	187·5
4. Of Brain, Nerves, etc. ..	120	43	16	20	35	6	128·1
5. Of Heart, etc.	42	2	10	15	13	2	40·6
6. Of Respiratory Organs ..	209	85	11	41	59	13	264·9
7. Of Digestive Organs ..	51	19	6	13	10	3	60·7
8. Of Kidneys, etc.	27	2	8	7	9	1	14·3
9. Of Uterus; viz. — Puerperal Disease, etc. ..	10	1	4	5	..	..	8·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	..	3	..	3	..	8·4
11. Of Skin, etc.	2	1	..	..	1	..	2·6
12. Malformations	4	4	..	..	..	..	4·1
13. Debility from Premature Birth, etc.	27	25	1	1	..	..	25·5
14. Atrophy	31	24	..	1	6	..	25·2
15. Age	48	..	..	..	28	20	55·5
16. Sudden	7	3	1	2	1	..	9·8
17. Violence, Privation, etc...	25	15	1	5	3	1	31·1
CAUSES NOT SPECIFIED.. ..	2	2	..	..	..	..	10·8

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Congh.	Diarrhœa.	Typhus.
West.....	376,427	2	2	6	6	1	4
North	490,396	1	8	8	11	5	13
Central ..	393,256	..	1	7	11	..	7
East.....	485,522	2	6	8	13	4	12
South	616,635	3	..	14	15	2	8
Total..	2,362,236	8	17	43	56	12	44

BOOKS RECEIVED.

Dr. Blackie on Cretinism. Edinburgh: Maclachlan and Stewart. 1856.
Trees and their Nature. By Dr. Alexander Harvey. London: Nisbet and Co. 1856.
Ocular Spectres and Structures as Mutual Exponents. By James Jago, A.B., M.B. London: Churchill. 1856.
On Disease of the Supra-renal Capsules. By Thomas Addison, M.D. London: Churchill. 1856,

TO CORRESPONDENTS.

Dr. Todd's Clinical Lecture on Cardiac Disease will be published next week.

r. Walshe's Clinical Commentary on a Case of Cirrhosis of the Lung and Bronchial Glands, has been received, and will be published shortly.

We are compelled to postpone Dr. Hunt's second Paper on Epilepsy until next week.

Stourbridge Union.—We have received the account of the correspondence between Dr. Walker and the Guardians of this Union. He appears to have suffered considerable annoyance from the arbitrary and tyrannical conduct of his taskmasters. We should recommend him to appeal to the Poor Law Board.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Some months since, I saw (I believe in the *Medical Times and Gazette*) a prescription for preparing a simple and inexpensive, but most useful muriated solution of Opium. I usually copy things of that kind, but then omitted to do so. I shall be much obliged to one of your readers to furnish me with a form for making it.

Jan. 29, 1856. I am, etc. A CONSTANT READER.

Dens.—The best English works on Dental Surgery are Bell's Lectures, and Tomes's Lectures, published by Parker. The best American work on the same subject is Harris's Principles and Practice of Dental Surgery.

Mr. W. Ramsay Steuart's paper on Rheumatism has been received, and will be published shortly.

In consequence of the crowded state of our columns, we are compelled to postpone Mr. I. B. Brown's paper for the present.

We have received the account of the proceedings of the Military Medical and Surgical Society, 1st Division, British Army, Crimea, and shall publish them next week.

Inquisitor.—The fee for the Diploma of M.D. at St. Andrew's, is £26 5s. The examinations are held twice a-year, in May and October. The first part of each examination is by means of written answers to printed papers; the latter part is conducted *viva voce.*

Ignoramus begs the Editor of the *Medical Times and Gazette* to inform him if he can, and where he can, obtain information respecting the amount of Medical in-door relief afforded by the various London Workhouses—that is to say, the number of beds for the sick in the London Workhouses, or connected with the Poor Law system, and supported by the parochial rates; together with the number of patients treated in the Workhouse hospitals, and the conditions of admission of patients to these hospitals. Can Ignoramus find statistics regarding these points in any publication? and if so, can the Editor refer him to the name of such publication.

Mr. Henry Day.—We have received the letter commenting upon certain portions of Dr. Taylor's evidence in the late poisoning cases at Rugeley. As we have not published Dr. Taylor's evidence, and do not know whether it was correctly reported or not, we feel that it would be improper to criticize it at present. At the trial of Palmer for the alleged murders, there will be ample opportunity for evidence to be heard on both sides; and we shall not fail to watch the proceedings in the closest manner.

We have received a copy of the correspondence between the Todmorden Board of Guardians and the Society of Apothecaries, relating to the case of Mr. Cockcroft, who was under prosecution by the Society, but who subsequently passed the Society's examination. We shall refer to the case next week.

Dubious.—The instruments in question are useless.

We have received a letter from Dr. Dundas Thomson, in reference to some remarks which we made last week, upon what appeared to us to be some electioneering tactics. Dr. D. Thomson assures us that the laudatory paragraphs to which we alluded, were as novel to him as to ourselves. We shall willingly insert the letter next week, and would have done so in our present number, but it did not arrive until our Journal was "made up."

COMMUNICATIONS have been received from—

Mr. W. ADAMS; Mr. I. B. BROWN; Mr. E. WILKINSON; Dr. BAINES; Dr. SNOW; Mr. J. LANG; Mr. W. RAMSAY STEUART; Mr. G. B. BARRON; A COUNTRY SURGEON; Mr. TOMES; Dr. TODD; Q.; Dr. ANDREW SMITH; Mr. L. W. SEDGWICK; Mr. THORNTON, Crimea; Mr. W. BURTON; IGNORAMUS; Dr. RIGBY; INQUISITOR; A CONSTANT READER; L.; H. S. A.; TYRO; E PERICULO TUTUS; Dr. LIONEL BEALE; THE UNIVERSITY COLLEGE MEDICAL SOCIETY; Mr. E. B. TERRY; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; DUBIOUS; Dr. WALSHE; Mr. W. WEBBER; Mr. EDWARD LISTER; THE ROYAL INSTITUTION; Mr. WM. TAYLOR; JUVENIS; Mr. HENRY DAY; Mr. TINSLEY.

APPOINTMENTS FOR THE WEEK.

FEBRUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
2. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.
4. MONDAY.....		EPIDEMIOLOGICAL SOCIETY, 8 p.m.: Subjects—W. B. Kesteven "On Concurrent Scarlet Fever and Measles."—Mons. Raymond Talot "Observations on the Cholera Epidemic that occurred in 1854, at St. Laurent-d'aiguoze and its environs." CHEMICAL SOCIETY, 8 p.m.
5. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. LINNEAN SOCIETY, 8 p.m.
6. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	PHARMACEUTICAL SOCIETY, 8 p.m. ROYAL SOCIETY, 8½ p.m. GEOLOGICAL SOCIETY, 8 p.m.
7. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	HARVEIAN SOCIETY, 8 p.m.: Mr. Winchester "On a New Method of Treating Fractures." UNIVERSITY COLLEGE MEDICAL SOCIETY, 8 p.m.: Mr. Robert Hunter "On the Speculum and its Uses." ZOOLOGICAL SOCIETY, 3 p.m. PHOTOGRAPHIC SOCIETY, 8 p.m. Anniversary.
8. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	ROYAL INSTITUTION, 8½ p.m.: Professor H. D. Rogers (from the United States) "On the Geology and Physical Geography o North America." ASTRONOMICAL SOCIETY, 8 p.m. Anniversary.

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE VI.

TALIPES EQUINUS.

GENTLEMEN,—In the previous Lectures I have described to you the general pathology and principles of treatment of congenital and non-congenital deformities of the feet, preferring this course to the plan of describing in detail the causes, mode of production, and general pathology in respect of each variety as I describe it. We have thus been enabled to take a general and comprehensive view of the whole;—to consider the general laws and conditions according to which these deformities take place, and the principles of treatment indicated; instead of magnifying, as it were, each special deviation of form into an exaggerated and undue importance.

It now remains for me, therefore, to describe to you the anatomical characters of these several varieties, alluding to any special peculiarities in their pathology of a practical bearing, and to point out to you the means necessary to their cure or improvement.

You will no doubt remember I told you that there are four principal varieties of club-foot, viz.: 1st. Talipes equinus, elevation of the heel, with extension of the foot; 2nd. Talipes varus, inversion of the foot; 3rd. Talipes valgus, eversion of the foot; 4th. Talipes calcaneus, depression of the heel. And that there are also three compound varieties, or intermediate forms, viz.: 1st. Equino-varus, when the foot is somewhat inverted as well as extended; 2nd. Equino-valgus, when the foot is everted as well as extended; 3rd. Calcaneo-valgus, when the foot is everted with depression of the heel.

I now propose, first, to direct your attention to the simplest and most frequent variety of club-foot, viz., Talipes equinus, so called from the general external resemblance which this deformity, in its most severe form, presents to the foot of the horse.

External Characters.—In a well-marked case of talipes-equinus, its external characters are, elevation of the heel with depression of the toes and anterior portion of the foot, without lateral inclination either inwards or outwards. The individual walks apparently upon the toes, but really upon the extremities of the metatarsal bones, the heads of which, under the weight of the body, become more or less separated from each other, so that the anterior part of the foot acquires an increased breadth.

The longitudinal arch of the foot becomes contracted, that is, its extremities approximated, in consequence of the weight of the body being sustained by its anterior extremity. This produces a shortening of the foot and a deep concavity in its sole, which increases with the duration of the deformity. In proportion as this contraction in the sole of the foot exists, so you will also observe a prominence of the head of the astragalus on the dorsal surface. These appearances are well seen in this cast, from the foot of a lady, aged 25 years.

Fig. 20.

Talipes Equinus.

Fig. 21.

Cure of Talipes Equinus shown in Fig. 20.

External characters modified.—The external characters, however, are variously modified, according to the condition of the muscles and duration of the deformity. When the anterior muscles of the leg and foot retain their power, the toes are always extended or drawn upwards from their metatarsal joints, as in the above representation; and in cases of a spasmodic character they also become flexed upon themselves at their first phalangeal articulations, thus presenting a claw-like appearance. When the anterior muscles are paralyzed, and the foot little used in progression, the toes become more or less completely folded upon themselves backwards, both from their metatarsal and their phalangeal articulations. These three conditions of the toes are useful in aiding a rapid diagnosis as to the cause of the contraction, and the general prognosis with respect to the gain of muscular power and usefulness of the feet after operation.

Fig. 22.

Talipes Equinus, with Retroversion of the Foot.

In some cases of talipes equinus in which all the anterior muscles are completely paralyzed, a more conspicuous deviation in form occurs; and, instead of the toes being extended, and the weight of the body received upon the heads of the metatarsal bones, the foot becomes completely bent upon itself in the direction of its length, the toes and metatarsal bones being, as it were, folded backwards, so that the individual walks upon the instep, as seen in this cast.

This extreme flexion of the foot upon itself takes place only under the circumstances of complete paralysis, and great relaxation of the ligaments. Under similar conditions, the foot may become completely inverted, so as to assume the form of talipes varus; but, deviating to a less extent, it frequently becomes somewhat twisted and contracted in a lateral direction, either inwards or outwards, these deviations being generally determined by a more or less predominant power in certain muscles, as well as the superincumbent weight. However, when any lateral deviation exists, the case is no longer one of pure equinus, but is considered a compound deformity between equinus and one of the other varieties; and, according as the foot turns inwards or outwards, the deformity receives a separate name. If the inclination is inwards, it is called equino-varus, and if outwards, equino-valgus.

The description I have given you of talipes equinus is drawn from a severe case of that deformity; but we have every degree between the slightest elevation of the heel, without other deformity of the foot, and its extreme elevation, with the other severe contractions above described. We frequently see the heel raised about an inch from the ground, as in this cast; by-and-by, however, the consecutive phenomena begin to develop themselves; and, as we see here, contraction in the sole of the foot, and the bending of the toes,

had already commenced. All the inconveniences of the severe deformity are then experienced. Cases, however, in which there is no deformity at all, and in which the heel comes well to the ground in the erect position, but in which the tendo-Achillis is contracted (or, more properly speaking, the muscles which terminate in it) sufficiently to prevent flexion of the foot taking place beyond a right angle, are also classified with this deformity, and described as cases of talipes equinus. We speak of them commonly as cases of *right-angled contraction of the tendo-Achillis.*

This latter condition gives rise to a certain amount of lameness, with inability to walk a moderate distance without fatigue. In consequence of the limited flexion at the ankle-joint, the stride is necessarily shortened; and, for the same reason, the feet are turned outwards with a twisting movement in the act of progression. From the absence of deformity, and as feet are usually examined by Surgeons without reference to the extended position of the leg, you may fail to recognize this condition, but you will readily detect it by the following means:—When the patient is in a sitting position, raise and extend the leg, and direct him to keep it so by a downward pressure on the knee-joint; then flex the foot, and you will at once find whether its natural angle of flexion is limited or not. These cases are of more practical importance than they may at first appear, and when the muscles are in a healthy, or nearly healthy, condition, the tendo-Achillis may be divided with great advantage. Where the muscles are either paralytic or rigid from spasm, little good will result, but in some of the latter cases, where there is no general affection of the muscles of the lower extremity, tenotomy is useful.

Special effects and inconveniences.—When severe talipes equinus exists only in one limb, and the muscles retain a certain amount of power—a very favourable condition for treatment, frequently met with, and present in the case represented in Fig. 20—an extreme degree of lameness is the result, far beyond that caused by the severest form of congenital talipes varus because, practically, the length of the leg is increased in proportion as elevation of the heel and extension of the foot coexist with immobility of the ankle-joint. Theoretically, this condition ought to produce lateral curvature of the spine. Inequality in the length of the legs, it has been said, and mathematically proved, *must* produce lateral curvature of the spine; and by some authors it has been given as a common cause of this deformity, but practically we find that it does not do so as a rule. Such cases are met with, but in the large number of cases of talipes equinus seen at the Orthopædic Hospital, lateral curvature of the spine is a comparatively rare and exceptional result. I entirely concur in the observation made by Dr. Little, that, except in cases in which other conditions favourable to the production of lateral curvature exist, it is very rarely produced by this deformity of the foot. In the very awkward gait of these patients, the spine certainly appears to twist in all directions, but the muscles on both sides of the spine appear to become equally strengthened, and thus curvature is prevented.

More serious inconveniences than severe lameness result in many cases. Very painful and incurable corns form on the portions of the foot most subject to pressure; and the skin on the dorsal surface of the toes suffers from friction, becomes excoriated, and the seat of deep and painful fissures. This condition existed in the case above figured, No. 20, and has been represented. The lady who was the subject of this deformity could scarcely walk at all when she consulted me, in September, 1853, in consequence of these deep and very troublesome fissures. She was unable to wear any form of boot, and had become very stout from want of exercise. I cured the deformity, as shown in Fig. 21, and she can now walk any reasonable distance with ease and comfort, wearing only common shoes.

The lameness and other inconveniences from talipes equinus also depend very much upon the condition of the muscles of the foot,—as in paralytic or spasmodic cases,—and the extent to which other muscles in the lower extremity are similarly affected. To these I have already referred in the Lectures on the Pathology of Non-Congenital Deformities, and would merely observe that in the paralytic cases, when one foot is affected, and the extensor muscles of the leg also are paralyzed—a very frequent condition—a single crutch is generally used, or sometimes a wooden leg from the knee is preferred. When both limbs are thus affected, the individual is totally unable to walk, even with the assistance of crutches. The successful treatment of these apparently hopeless cases I have also referred to.

Morbid Anatomy.—The anatomical deviations in this deformity are extremely simple. The position of the foot is one which may be readily assumed in a state of health; and as the deformity is essentially, if not invariably, a non-congenital affection, we should not expect to find the bones materially altered in form. In cases which have occurred in childhood, and existed for many years, the bones become slightly altered in form; but never, at any age, has this been found, either practically, or by dissection, sufficient to prevent the perfect restoration of the foot to its natural form. We have restored these feet in patients beyond sixty years of age; and in a case which I dissected four years ago from the body of a man, aged 25 years, in the dissecting-room of St. Thomas's Hospital, and which is now preserved in the Museum of the Hospital, no material changes had taken place in the form of any of the bones (a).

The deviations in the bones, then, relate to *position* rather than *form*. The *os calcis* assumes a more or less completely vertical position, from contraction of the gastrocnemius and soleus muscles. It comes in contact with the posterior margin of the articular surface of the tibia, and, as a necessary result of this movement, the *astragalus* is thrust forwards and obliquely downwards—partially luxated, as it were, from the ankle-joint—so that its head projects in front, on the dorsum of the foot. In some cases, as in Fig. 20, this projection is very obvious and well defined, not only from the altered relations of the bone at the ankle-joint, but also in consequence of *the navicular bone* receding backwards from the head of the astragalus, in the bending of the foot upon itself, above described. This movement takes place at the joint, between the astragalus and navicular bones; and is followed by adapted atrophy and shortening of the structures in the sole of the foot, producing the contraction of the longitudinal arch and the general shortening exhibited in Fig. 20. This exists to an extreme degree in the paralytic cases above mentioned, in which the foot is completely bent upon itself backwards.

The metatarsal bones assume a more or less completely vertical position in proportion to the elevation of the heel and extension of the foot. In the more severe forms, they are also separated from each other laterally towards their distant extremities; thus increasing the breadth of the foot at the part through which the weight of the body is directly transmitted to the ground.

The metatarsal bones may pass beyond the vertical position in a direction backwards, in the completely paralytic cases above mentioned, and may really occupy a position at right angles backwards to the axis of the leg. In these cases the weight of the body is transmitted to the ground directly through the head of the astragalus and the other tarsal bones, as in Fig. 22.

The bones generally are found to be light, thin-walled, and atrophied in cases of long-standing, and especially those of paralytic origin. Their cancelli are enlarged, and filled with oily matter. These conditions are obviously the result of defective nutrition and disuse.

The articular cartilage on the exposed and extruded portions of the articular surfaces—in this deformity the anterior portion of the superior and lateral articular surfaces of the astragalus, and the superior portion of the head of the astragalus; and also in some cases the inferior portions of the heads of the metatarsal bones—becomes thinned, and completely removed at the articular borders, exposing the osseous surfaces.

The ligamentous structures in front of the ankle-joint, and on the dorsal aspect of the foot, especially the ligament between the astragalus and navicular bone, are found to be elongated in proportion to the degree and duration of the deformity; while those on the plantar aspect of the foot are contracted and shortened to a corresponding extent. The lateral ligaments of the ankle-joint are also elongated in their anterior portions, and contracted at their posterior borders. The posterior ligaments of the ankle-joint also become structurally shortened, in adaptation to the altered relations of the os calcis and tibia, which at the margin of the ankle-joint are in contact in severe cases.

The muscles are found in very variable conditions, corresponding to the cause producing the deformity, whether para-

(a) See Transactions of Pathological Society, Vol. 3.

ytic, spasmodic, or positive; and also to the length of time the deformity has existed. They will be found to present every possible deviation from the standard of health, through all the changes of fatty degeneration, and some other obscure structural changes, to the complete destruction and removal of their proper tissue, in place of which fatty matter and fibrous tissue are chiefly substituted. The changes of fatty degeneration are most marked in the cases of paralytic origin. In spasmodic cases, even of many years' duration, the changes of fatty degeneration appear to be very slowly and imperfectly developed, but they are found in the most contracted and least used muscles. I have not seen any evidence of a distinct fibrous degeneration, or development of new fibrous tissue in the spasmodic cases, as described by M. Guérin.

The muscular fibres are found of very variable size, and presenting some peculiarities, such as a brittleness, and disposition to break into short lengths, under various conditions. In several examples of extreme fatty degeneration and complete removal of the normal muscular tissue, I have seen a few very minute muscular fibres, about $\frac{1}{1800}$ of an-inch in diameter, with striæ well developed; adipose tissue, occurring as a double row of fat-cells, existed in the neighbourhood of these small muscular fibres, which Mr. Quekett considered to be either of new development, or else fibres that had never attained their normal size. All these appearances are shown in Plate XII. Vol. 3 of the "Transactions of the Pathological Society," published in 1852, and described in a tabular form. Every muscle of the leg is described separately in three examples of non-congenital club-foot, of different kinds, and of different origin, which were most carefully examined by Mr. Quekett and myself, with the view of determining the connexion between the different structural changes and the physiological conditions upon which they depend. I have since confirmed the general results given by several dissections and examinations of recent specimens. Two of the specimens above alluded to I obtained from the dissecting-room of St. Thomas's Hospital, and one was very kindly placed at my disposal by Mr. Partridge.

The contracted muscles, which become permanently shortened by adapted atrophy, are the gastrocnemius, soleus, and plantaris in the calf of the leg, producing elevation of the os calcis; and the short flexor in the sole of the foot, producing the contraction in the longitudinal arch. In this condition, the plantar fascia is also contracted. In severe cases of long standing, the deep muscles, both in the leg and sole of the foot, may also become somewhat shortened; but it does not appear that they do so to an extent to prevent restoration of the foot to its natural form and position by mechanical means, after division of the tendo-Achillis.

The tendons are altered in direction rather than in their relations to each other, and to the vessels and nerves, in proportion to the severity of the case, and the special deviations in the external characters above described. These deviations are not, however, of any Surgical importance, as they occur in tendons which do not require division. The tendo-Achillis remains unaltered in its direction.

(To be concluded in our next.)

ORIGINAL COMMUNICATIONS.

CASES ILLUSTRATING THE ETIOLOGY AND TREATMENT OF EPILEPSY.

By HENRY HUNT, M.D.

(Continued from page 86.)

In my last communication I endeavoured to show, that an abnormal excess of alkali in the blood is capable of predisposing the nervous system to disorder and disease by its direct action on the nervous tissues. I wish now to suggest, that the deleterious influence of the alkali is not confined to its direct action on those tissues, but that it probably causes various chemical changes among the ingredients of the blood, which result either in the generation or retention of noxious matters in the system, which are capable of exciting at least a tendency to spasm and convulsion, especially when the nervous system has been previously weakened by the direct action of the alkali on it.

It is, I believe, admitted, that when one of the stronger acids is taken into the system, it separates one or more of the weaker acids from their bases; and they in their turn separate those having weaker affinities than themselves. A series of decompositions and recombinations thus take place, each change involving the formation of compounds endowed with different properties from the one decomposed, and capable of exciting different and perhaps specific effects on the animal economy, which are made manifest by trains of morbid actions, corresponding with the changes taking place in the blood. We may, therefore, presume, from a parity of reasoning, that the presence in the blood of an undue quantity of an alkali, for which the acids in that fluid have a greater affinity than for the base with which they happen to be combined, will in like manner occasion a series of decompositions and recombinations, only in the opposite direction. It is also probable that, in this way, a great excess of alkali may prevent certain normal changes among the various ingredients in the blood, which are necessary for the elimination of some of the noxious matters generated by, or derived from, the natural disintegration of the tissues of the body—the cyanide of ammonia, urea, for example. In confirmation of this hypothesis, I will quote a passage from the introduction to the work of Dr. Prout, so often referred to. In treating of urea he says, "Alkalies scarcely affect urea at low temperatures; but, when assisted by heat, they rapidly convert it (together with water) into carbonate of ammonia." It is, therefore, a fair inference, that if alkalies decompose urea when formed, they will also prevent its elements combining so as to form it; an idea that is strengthened by the fact asserted by Dr. Prout, "that the quantity of urea in the urine (of persons in whose blood there is an undue amount of alkali) is usually deficient, while the quantity of soda and ammonia is in excess."

These are points of great interest in investigating the causes of epilepsy, because in whatever form the elements of urea, especially the noxious ingredient cyanogen, may enter, they will, if retained in the system, probably account for many of the symptoms from which epileptics suffer so much, if not for the epileptic convulsion itself; for it is more than probable that when cyanogen or a cyanide has accumulated to a certain extent, it will act on the brain and spinal cord as it does in the form of hydrocyanic acid, which, according to Dr. Pereira, "when given in large doses, but not sufficient to cause instant death, occasions convulsions;" and it would be likely, in smaller quantities, to produce those transient nervous symptoms, sudden faintness, momentary loss of consciousness, and those feelings of undefined terror and want of self-confidence so conspicuous in epileptics, especially as the period of a recurrence of fits approaches, and which, together with feelings of general nervous irritability, progressively increase up to the moment of the convulsion, and usually subside after the fit: as if the cause, whether it be a materies morbi or not, having accumulated so as to produce an attack, is expended during the violent muscular and nervous action which constitutes a fit.

Having made these preliminary observations, I will proceed with the narration of the cases, the study of which suggested the preceding remarks and theory, and led to the adoption of a novel mode of treatment, which has proved, as far as it has been tried, singularly successful.

Case 2.—Mr. B., aged 18, passed the summer of 1851 in a malarious district. Towards the autumn, he perceived a manifest change gradually coming over him: he became languid and incapable of exertion, and his intellectual faculties so dull, that he was unable to prosecute his studies. In a short time headache supervened, and steadily increased in intensity. He then came to London for advice. I found him suffering from a severe pain over the left temple, which occurred daily about twelve o'clock, and continued for four hours; but the severity of the pain alone subsided, for he was never perfectly easy. It was a kind of remittent headache. His tongue was loaded, the skin and eyes dingy, and half jaundiced, the urine scanty, and tinged with the colouring matter of bile, the bowels constipated, and the abdomen full, hard, and unyielding. I prescribed an emetic, and a brisk cathartic, which brought away a large quantity of vitiated bile, and afforded great relief. As soon as the liver and portal system were thoroughly unloaded by a repetition of the latter remedies, the constancy of the headache entirely ceased, and

the pain assumed a regular intermittent type with intervals of perfect ease.

This was quickly cured by quinine. He was then sent into the country to recover his strength. Although the pain did not return, a general feeling of malaise remained, which he could not throw off. He continued in this uncomfortable condition for several weeks, when he was attacked while dancing in a very singular manner. His deep manly voice suddenly changed into a squeaking puerile tone, his conversation was rather childish than irrational; at first the lady, with whom he was talking, thought this alteration in his voice and manner was assumed; but presently he began to stare about the room in an unmeaning way; he was then led to a chair, he was no sooner seated than his head dropped forward, and he became insensible. He recovered his consciousness in a few minutes, but was not at all aware of what had happened. I saw him on the following day, and witnessed a similar attack, in which, before he was insensible, he closely resembled a person in a state of somnambulism.

Great difficulty was experienced in tracing this anomalous affection to its true cause; but, as it was evident from the abnormal state of the secretions that the general health was much disordered, I determined to apply my remedies to rectify it by correcting them. The alvine discharges were of a mixed character, portions being very dark, while other portions were of a pale clay colour; the urine was pale and slightly acid, the tongue a little furred, the pulse slow and feeble, the complexion tolerably clear. I prescribed a course of alteratives and mild aperients, combined with vegetable tonics and aromatics. The dark appearance of the stools was soon removed, but there was still a deficiency of bile, and the urine became at the same time paler and almost neutral, but not positively alkaline. During this treatment all the nervous symptoms steadily increased, and my patient often dropped senseless on the ground, sometimes without warning, and remained a long time insensible. Vegetable and mineral tonics were now given; but under their use, the disease still growing worse, a consultation was held, first with Sir Henry Holland, and subsequently with Dr. Marshall Hall, both of whom recommended me to return to the general treatment I had first adopted. The disease, however, rapidly increased in violence. The delirium sometimes continued several days without intermission, excepting during the fits of insensibility, which were now accompanied by convulsions, affecting both sides of the body alike. The alvine discharges still showed a marked deficiency of bile; the complexion had become unnaturally pale and clear, resembling the appearance of a person who had long resided in a tropical climate. The urine was limpid, of a low specific gravity, almost neutral, and contained little else than a large quantity of the chloride of sodium, with scarcely a trace of urea.

I then prescribed the nitro-muriatic acid bath, in which he was to remain for twenty minutes every night. I also gave him 20 minims of the dilute nitro-muriatic acid twice a-day before meals, and a compound rhubarb pill every night. I advised also that a moderate quantity of subacid fruits should be added to his diet, and lemon-juice or vinegar to be freely used in the preparation of his food. The good effect of this treatment was immediately perceptible.

In the course of a few days my patient expressed himself as feeling better, and as having more nervous energy. In the course of ten days, the alvine discharges were evidently more tinged with bile, and the urine more acid. At the expiration of another fortnight, many of the nervous symptoms abated; and at the end of six weeks there was a manifest decline in the delirium, which then rarely continued more than a few minutes, and soon afterwards ceased altogether. The next improvement was a gradual diminution in the violence and duration of the fits, and of the insensibility following them; and the fits themselves ceased to return about ten weeks after the commencement of the acid treatment. In order to confirm the cure, the baths were used occasionally for several months, and were not entirely laid aside until the lithate of ammonia was freely deposited in the urine, which I consider a sure indication of a complete change having taken place in the system. Since that time, now four years ago, this gentleman has remained in perfect health.

I am well aware how difficult and dangerous it is to determine how much of such a cure is to be attributed to the treatment employed; yet the effect of the acid remedies was so immediate and decided, that it is impossible not to believe that they had some share in bringing it about; especially when we remember how successfully a combination of acids and purgatives was administered, and how greatly the epilepsy was aggravated by the saline and alkaline remedies in the first case. The case of this gentleman is also peculiarly valuable, for we rarely meet with one, in which the regular gradation of changes in the symptoms can be so clearly traced to corresponding changes taking place in the blood; for there can be no doubt that the primary symptoms—the loss of energy, depression of the vital powers, and the dulness of the intellectual faculties, were caused by the contamination of the blood from the inhalation of malaria; and that to this cause may also be attributed the derangement of the functions of the liver. The complete relief of the constant headache, by the removal of the accumulated bile, proved that at least the constancy of the pain was caused by the hepatic disorder. The accumulated bile having been removed, the malarious poison was enabled to exert its specific influence on the nervous system; the headache consequently assumed a regular intermittent type, until checked by the anti-periodic properties of quinine. The connexion between the subsequent nervous symptoms and state of the blood, is perhaps not so clear; yet the relation between them is sufficiently well marked to warrant the presumption that they were in some way connected, as cause and effect.

The absence of bile in the alvine discharges, showed that some of the ingredients of that secretion were retained in the system, whilst the analysis proved the presence of an undue quantity of soda in the urine, consequently in the blood from which it was derived; and this, according to Dr. Prout, is likely to have acted on the brain in a very deleterious manner, and to have produced the delirium, as it did in the case he refers to. And according to the theory suggested in the beginning of this paper, the undue quantity of soda probably prevented the extrication of urea, which would account for many of the nervous symptoms, and not unlikely for the fit itself.

This is, at least, a plausible explanation of the various morbid phenomena manifested in the progress of this instructive case, and its correctness is supported by the fact, that the delirium and other nervous symptoms commenced with the imperfect secretion of bile and the retention of its ingredients, and that they increased in proportion as those ingredients accumulated; and progressively declined from the day the liver began to resume its functions, and the abnormal state of the blood was corrected by the acid treatment.

I propose to relate in my next communication a case of epilepsy of twelve years' duration, in a lady whose memory and other intellectual faculties had been seriously impaired by the disease, but which have been to a considerable extent restored, and the fits cured by the acid treatment.

(To be continued.)

APPENDIX TO TABULATED ACCOUNT OF LABOUR IN WHICH THE ERGOT OF RYE WAS ADMINISTERED.

By R. U. WEST, M.D.

I ADD the four following Cases to the Table published in this Journal for December 22, at pp. 617-621, two of them having an important bearing on the subject discussed in that paper. Comparing together the last two cases, I think it evident that if the fœtus ever suffer at all from the action of a dose of ergot of rye, it can only be from continuous mechanical pressure. Thus, in Case 72, in which the head was hastily forced through the passages by pains which were incessant and without any perceptible interval between them, there was considerable difficulty in establishing the function of respiration. While, in Case 73, in which the ergot was given twice, producing the characteristic continuous pains, and with the same preliminary conditions of redundant liquor amnii and high head, the child was born perfectly lively and vigorous, though longer exposed to the influence of the drug, having been brought away by the feet, and the risk of pressure entirely obviated by quick delivery. Surely we may discard the notion of a *poisonous* influence of the ergot after such a case.

Alford, Lincolnshire, January 2, 1856.

CONTINUATION OF TABLE SHOWING THE EFFECTS OF ERGOT.

Date.	Case.	Number in Midwifery Register.	State of Os Uteri when Ergot was given.	Interval between Dose and Birth of Child.	Condition of Fœtus.	Funis round Neck.	Character of Pains Induced.	Uterine Action before Ergot was given. Peculiarities of Case, if any.	How the Mother Recovered.
1855.									
Dec. 20	70	2442	Crown piece; dilatable.	1 hour.	Very lively.	Yes.	Good pains.	Pains rather languid; primipara, aged 19.	No bad symptoms.
Dec. 25	71	2443	Crown piece; dilatable.	1½ hour.	Very lively.	No.	Good pains; long intervals to the last.	Primipara, aged 27; had had slow grinding pains for 26 hours.	No bad symptoms.
Dec. 26	72	2444	Half-a-crown; dilatable.	¾ of an hour.	More than half-an-hour before respiration was satisfactory.	Yes.	Violently ergotic in ten minutes after dose.	Head high above pelvis, with redundant liquor amnii.	Diarrhœa, with pain and tenderness about uterus for 3 or 4 days; pulse hard and 120; good recovery since.
Dec. 30	73	2445	Crown piece; rather rigid; thick.	3 hours; — after 2nd dose, 1 hour.	Very lively; very large child.	Yes, twice.	Ergotic, but not satisfactory.	Little or no pain; had had irregular pains for three days; vertex in second position Head very high, with redundant liquor amnii, and great ballottement. Head not descending into pelvis, when os uteri was well dilated, I turned the child and delivered footling. I had ruptured the membranes before giving the ergot.	Diarrhœa, with pain and flatulence for two or three days; pulse natural; good recovery since.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

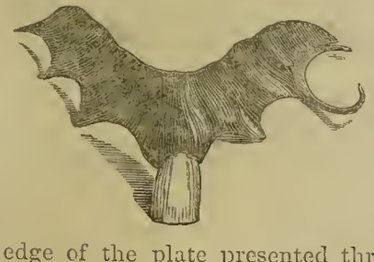
We hasten to bring before the Profession authentic and somewhat detailed particulars of a case of extremely unusual character now under care in Guy's Hospital. Operations for the removal of foreign bodies from the pharynx or œsophagus are of very great rarity, and although a popular belief to the contrary appears to have extended even to some members of the Profession, they involve very much both of danger and of difficulty. As the case is as yet not quite complete, and we shall give its final result at some future time, we shall defer till then allusion to the three or four somewhat similar ones which are on record, and for the present content ourselves with a simple narrative.

OPERATION FOR THE REMOVAL OF A LARGE ARTIFICIAL TOOTH-PLATE FROM THE PHARYNX—RECOVERY.

(Case under the care of Mr. COCK.)

Mr. T. G., aged 22, a highly-respectable tradesman at Dartford, was brought to Mr. Cock's residence on Thursday, January 17, by Mr. Martin, Surgeon, of Dartford.

It appeared that for some time he had been wearing a false central incisor tooth fixed to a gold plate, which extended some distance on either side. The foreign body, which was subsequently removed from the pharynx, may be thus described:—The plate formed the segment of a circle corresponding with the hard palate behind the incisor cuspidati and bicuspides teeth. The one extremity terminated in a slender clasp, with two points as sharp as needles, and encircling the bicuspis tooth; the other extremity formed a single sharp point. The anterior edge of the plate presented three acute angular projections, which corresponded with the inter-dental spaces; and from this margin also the false tooth formed a prominent projection. The extreme length of the plate—in other words, the *sector* of the circle—was an inch and five-eighths; while a line drawn from the edge of the tooth to the sector measured exactly one inch.



This plate had been swallowed by the patient during sleep, about 2 o'clock, a.m.; and Mr. Martin, finding that it had stuck in the gullet, and could neither be seen nor felt from the mouth, brought him up to Mr. Cock for further advice.

There could be no doubt that the foreign body had lodged in the cervical portion of the swallow, but its exact situation was not very clearly indicated. The pain and irritation together with tenderness on pressure, all of which were very considerable, were referred to the top of the œsophagus, just below the larynx; but no projection indicating the precise locality of the plate could be detected from the exterior. He was able to swallow fluids, although in very small quantities and with great difficulty. His breathing was not impeded, but he had an irritating laryngeal cough.

Under these circumstances, Mr. Cock judged it most expedient to delay any active measures for extraction, until the patient had recovered from the immediate effects of the accident and the fatigue and excitement of his journey. He was, therefore, advised to go into the Hospital, in order that every available means might be used; and he willingly agreed to this arrangement. In the course of the afternoon he was visited by Mr. Cock, who passed a bougie into the pharynx, and found a total obstruction about the lower edge of the larynx, in fact just at the junction of the pharynx and œsophagus. A pair of strongly-curved forceps detected the plate, but it could neither be grasped nor moved from its position. As his respiration was unimpeded, and the pain quite bearable when kept at rest, it was determined to postpone further measures until the next day. A full dose of opium was given, as much fluid nourishment as he could get down was ordered, and he was furnished with ice to suck at his leisure.

On Friday, January 18, Mr. Cock saw him with Mr. Hilton. He was calm and tranquil, and had not suffered acutely except when pressure was made from the exterior, or when he attempted to swallow. It appeared very doubtful whether any fluid which he took into his mouth found its way into the œsophagus. Attempts were made with several instruments to grasp or dislodge the plate, but they all proved abortive, and it was found impossible to pass any instrument between the foreign body and the walls of the gullet, so as to get it below the obstruction. Mr. Cock, at length, succeeded in introducing a flexible catheter, No. 5, which appears to have found its way between the horns of the clasp which formed one end of the plate. As a means of conveying fluid into the stomach had now been obtained, it was suggested that the action of vomiting might possibly alter the position of the plate, and render it more accessible from the mouth. A pint of milk was accordingly conveyed into his stomach, and then half-a-drachm of sulphate of zinc and a scruple of powdered ipecacuanha administered. Strange to say, not even a sense

of nausea was produced, and the emetics were retained without producing the slightest constitutional effects. A mode of administering nourishment had, however, been obtained, and we could, therefore, afford to wait and take the chance of any favourable contingency. On Saturday, January 19, Mr. Cock made another attempt. Since the previous day he had twice fed the patient with milk, wine, and beef-tea; but the catheter was passed with great difficulty, and there was only one particular spot on the left side where it could be made to penetrate into the œsophagus. He was unable to swallow a drop of fluid by natural efforts, but derived great comfort from sucking ice. Mr. Cock attempted to pass a looped wire round the plate, and also manipulated with a flexible tube, from the extremity of which a pair of forceps could be projected, but no success could be obtained, and farther proceedings were laid aside for the present. On Sunday, January 20, no attempts were made, but the patient was fed three times through the catheter; the introduction of the instrument becoming more and more difficult each time. On Monday, January 21, Mr. Cock again met his colleagues. It was now imperative that some decisive step to remove the foreign body should be taken, as the flexible catheter could no longer be passed, and the patient was beginning to feel seriously the effects of want of nourishment and rest. The position of the plate was pretty clearly ascertained. It was impacted either at the commencement of the œsophagus or else just above (where the œsophagus and the pharynx join). It was determined to cut down and open the gullet. Mr. Hilton assisted Mr. Cock in the operation.

The patient was placed on his back, with his head and shoulders slightly elevated. Chloroform was given, and he was soon quietly under its influence. An incision of about four inches in length, was carried from the upper edge of the thyroid cartilage, nearly as far down as the sterno-clavicular joint; on the left side of which the platysma and cervical fascia were divided, bringing into view the carotid sheath and the omo-hyoideus muscle, which was thick and fleshy where it crossed the wound. This latter was divided, together with some filaments of the descendens lingualis nerve, and two or three small arteries, which were immediately tied to prevent as much as possible infiltration of blood into the cellular tissue. A little farther dissection laid bare distinctly the common carotid artery, the inner connexions of which were easily separated with the handle of the knife and the finger. It was considered to be an important object to separate completely the carotid artery from its internal attachments; and this having been accomplished, the vessel, together with the sterno-mastoid muscle was drawn outwards and retained by retractors, and thus rescued from injury or molestation, while the further steps of the operation were carried on, the object of which was to reach the upper portion of the œsophagus.

The thyroid body was now exposed by dividing a few of the external fibres of the sterno-hyoid and sterno-thyroid muscles, and the dissection was continued along the outer surface of the gland backwards towards the spine. The tissues were separated partly by the handle of the knife, partly by the blade. An artery, probably a branch of the superior thyroideal, was divided where it crossed the upper part of the wound, bled freely, and was secured with some difficulty. A larger vessel, probably the inferior thyroideal, was seen running across lower down, but escaped without injury. The larynx and trachea were gently drawn over towards the right side, so as to widen the large wound which gaped along the side of the neck.

The œsophagus was reached by following round the surface of the thyroid body, which completely covered and concealed the trachea.

About two inches of the gullet could now be traced with the finger, but no projection indicating the presence of the foreign body could be felt. It therefore seemed tolerably certain that the plate had not descended into the œsophagus, and must be lodged in the lower part of the pharynx. With some difficulty, by tilting the larynx a little forwards and over to the left, the finger was passed behind it, that is, between the pharynx and the vertebræ, and the body was now obscurely felt exactly behind the cricoid cartilage, protected as it were by the inferior course of the thyroid. The point of the knife was now brought to bear on what appeared to be the most prominent part, which proved to be the single tooth, and the grating sensation of the blade indicated that the pharynx was opened, and the foreign body reached.

The white tooth, in fact, became visible at the bottom of the wound; and, being grasped with a pair of forceps, the opening into the pharynx was dilated upwards and downwards with a blunt-pointed bistoury. After a little manipulation, one end of the plate was disentangled from its attachments and brought out of the wound, but the entire body was not extricated until a further slight division of the walls of the pharynx had been made. This, however, was soon accomplished with the assistance of Mr. Hilton, who cut along the edge of the gold plate, while Mr. Cock gently withdrew it with one hand, and protected the parts with the fingers of the other. The patient was carried to bed, and cold water applied to the wound, no means being used to bring the edges together. On recovering from the effects of the chloroform, he seemed to have suffered but little from the operation, expressed himself as comfortable and free from pain, and returned eagerly to his former occupation of sucking ice. An enema of beef-tea and wine was thrown up, as he had had no nourishment since the previous day. In the evening, he complained of great exhaustion, or rather sense of starvation, and Mr. Cock gave him nourishment through the catheter, and a full dose of opium.

January 22.—Was free from all untoward symptoms, and only complaining of an empty stomach. He was fed with milk and beef-tea three times. Sucking ice was a great luxury, although he believed that none of it passed into the œsophagus, and, as far as could be ascertained, no water found its way out by the wound. On the third day, January 24, Mr. Cock introduced the common œsophagus feeding-tube, which passed readily, without pain or obstruction. He has since been regularly fed by his dresser, Mr. Dyer, at first, three times, but afterwards, at his own request, four times in the twenty-four hours. He is always ready, indeed eager, for his meals, and receives them with great enjoyment. His diet consisted of beef-tea, brandy, and egg, arrowroot, with milk or wine. Notwithstanding this nourishment, of which he swallowed about four pints in the twenty-four hours, he was evidently losing flesh and strength. Accordingly, Mr. Cock ordered as much pounded meat to be mixed with the beef-tea as could be made to pass through the tube, and directed an ounce to an ounce and a-half of cod-liver oil to be given at each meal. He takes an opiate every night, but the quantity is undergoing gradual diminution.

February 5.—The increase of nutriment, or the oil, or both, have produced a decided improvement in his appearance, and he expresses himself as feeling stronger and better. His spirits have all along been good and hopeful.

The wound has looked healthy from the first, and has now contracted to half its original size. Since the operation nothing has been swallowed by natural deglutition, and he is very unwilling to make the attempt, as it causes considerable pain, and a sensation as if the wound was being rent open. He does not appear to swallow his saliva.

Had the foreign body been lodged in the upper part of the œsophagus, its extraction would probably have been more easily accomplished; but the protection which was afforded by the cricoid cartilage in front, and the posterior edge and inferior course of the thyroid, which, as it were, overlapped it at the side, rendered the access to it difficult and tedious, and materially complicated the operation.

SHORT NOTICES OF HOSPITAL THERAPEUTICS.

ST. BARTHOLOMEW'S, THE LONDON, AND THE OPHTHALMIC HOSPITALS.

IODINE PAINT WITH MASTIC.

The following is the formula for an iodine paint, made adhesive by the addition of mastic, which is used at the Moorfields Ophthalmic Hospital:—

℞ Spirit. vin. rect. ʒij.
Sp. æth. nitr. ʒiv.
Mastic. ʒss.
Iodinii, ad saturat.

The advantage gained is, that it does not run about the skin so much. Iodine counter-irritation to the lids continues to hold a high place in the estimation of the Surgeons to this Hospital.

TREATMENT OF PERINEAL FISTULA.

A case then under the eare of Mr. Lloyd in St. Bartholomew's, in whieh a minute perineal fistula left after lithotomy was about to be treated by the injeetion of aeetum lyttæ, was mentioned some months ago in this Journal.

The plan is one, which, as we then observed, Mr. Lloyd has repeatedly pursued with sueeess. In the case referred to, the result has proved most satisfaetory. The fistula was extremely small, but sufficient to allow a few drops of urine to eseape; the urethra was of course quite pervious, and, exeepting the sinus, the perinæum was in a healthy condition. The lad was about 12 years of age, and had been operated on for stone, two years ago. Repeated attempts had been made in other Hospitals, both by the use of the aetual cautery, and other means, to proeure the elosure of the fistula, but without success. The injeetion of the aeetum lyttæ was praetised (by Mr. Jowers, Mr. Lloyd's House-Surgeon) twice a week, for several weeks, with the result of proeuring perfeet elosure. We may mention for the benefit of those now attending St. Bartholomew's, that there are at present two almost similar eases of single small perineal fistulæ under eare in its wards: one under that of Mr. Lloyd in "Pitcairn," and the seeond under that of Mr. Skey, in "Harley;" Mr. Skey is using the nitrie aeid.

ASTRINGENT LOTION FOR ULCERS.

A lotion eonsisting of half a-draehm of the tineture of cateehu, to a pint of the deeoction of oak bark, is a favourite one at the Aldersgate-street Dispensary, as an application to foul and indolent ulcers on the leg. Mr. Savory, the Surgeon to that Institution, informs us that he finds it superior in efficieney to most other astringents. It is applied freely, a piece of lint being well soaked in it, and laid over the sore.

CHLORIDE OF ZINC COLLYRIUM.

At the Royal Ophthalmic Hospital (Moorfields), Mr. Critchett has for some time been employing a lotion of chloride of zine as an eye-water in cases of vascular and thiekened conjunetiva. He holds that the disease is a sort of "gleet of the eye," and analogous in nature to gleet of the urethra. The strength used, is one grain to the ounee. It has not yet found its way into the Hospital Pharmacopœia.

LINCTUS FOR CHRONIC COUGH.

The following is the formula for the linctus in eommon use in St. Bartholomew's Hospital:—

℞ Conf. rosæ caninæ ʒij.
Tragacanth. pulv. ʒi.
Syrupi papaveris ʒvj.
Aceti scillæ ʒvj.
Acidi aeetici, ɱxx.
Aquæ ferventis ʒvj.

Misce. Dosis ʒi. ad ʒiij.

A less expensive preparation is used for the same purpose in very large quantities at the London Hospital, under the name of Lohoch:—

℞ Saeehari fæeis ℔xxviij.
Ol. olivæ ʒviij.
Farinæ tritiei ℔iv.
Tinet. opii.,
Aeeti seillæ, ā ʒviij.

Misee. Dosis ʒi. ad ʒiij.

There are many forms of ehronie eough, both in ehildren and in adults, which are treated mueh more sueeessfully, and far more agreeably to the patient, by the use of preparations of this kind than by the eommonly-prescribed "eough-mixtures."

NOTES AND QUERIES.

He that questioneth much shall learn much.—Bacon.

No. 88.—Spiritus Terebinthinæ in Convulsions.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Will any of your readers give me some particulars eoneerning the use of spt. terebinthinæ in eases of convulsions oeeurring in infants, stating the dose and in what cases it is used? I am, etc. Juvenis.

No. 89.—Bichromate of Potash for Preservative Solutions.

Sir,—A knowledge of the virtues of the biehromate of potash as a means of preserving pathologieal speeimens may be aeeeptable to some of your readers. This salt, in the proportion of about four grains to an ounee of water, eonstitutes a solution quite equal to aleohol in its antiseptie powers, and whieh eosts only about twopenee a gallon. It will deprive a specimen already partially deeomposed, of all odour, and preserve it for any length of time. As, instead of hardening it, a little softens tissues immersed in it, it has a great advantage over both aleohol and Goadby's solution, for all objects which are intended to be re-examined, especially if the microscope is to be used. Preparations long kept in it become of a light olive green eolour externally, but retain most perfectly their natural appearanee at a little depth from the surfaee. The change of eolour in the case of red structures, sueh as musele, may be prevented by the addition of a little nitrate of potash. In the same way, if it is desired, the softening may be prevented by the use of alum. Unless in combination with both the two last-named ingredients, it is scarcely adapted for a permanent solution. The great advantages over all others is, in respect to specimens intended to be kept for limited periods, either for private disseetion or for exhibition. Those intended for the microseope are far less spoiled by it than by any other which I am aequainted with. The only odour whieh it gives to specimens is a very peeuliar one, resembling that of new kid gloves. The eheapness and efficiency of this salt will, I think, make it quite a boon to pathologists. I am, ete.

London, February 1, 1856. Experto Crede.

No. 90.—Epigram by Owen.

Sir,—In your Number of November 24, you published a very pretty epigram by Owen, which, I doubt not, most of your readers eould readily translate, nor do I feel that there will be any difficulty experieneed in translating another by the same author, which I send you for publieation. There is not the same mixture of "Latin and Freneh" as in the former one, and there is a very pretty run on the words, and the eonstruction is very good. It is as follows:—

Jurisconsultorum idem status et Medieorum est,
Damna quibus licito sunt aliena lucro.
Hi morbis ægrorum, agrorum litibus illi,
Dant patienter opem, dum potiuntur opûm.

I am, ete.

Ashby-de-la-Zouch, Feb., 1856. Perry Dicken, M.D.

No. 91.—Temperature after Death from acute Rheumatism.

Sir,—A correspondent—"B. S."—in your number for January 12, quotes from Dr. John Day a case of acute rheumatism, where a temperature of 113° existed three hours and a-half after death. Can he inform me whether, in this disease, a continuanee of animal heat after death has been often observed? On Deeember 21, 1855, I lost a patient from this disease, death occurring suddenly and unexpectedly. In this instance the temperature of the eorpse eontinued so high, on an intensely cold day, and in a room whieh had not had a fire in it, that eight hours after death a Physician was summoned by the relatives, under a belief that death had not really taken plaee. I am, etc.

January 31, 1856. J. W. K.

ANSWERS.

To Query 54.—Cod-liver Oil Oleine.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Your Correspondent "Q. Q. Q." wishes to know whether any trials have been made of the eod-liver oil oleine reeommended by Dr. Leared as a substitute for the oil itself. I suspeet that both Dr. Leared and your eorrespondent labour under a great delusion on this matter. The truth is, that one of the oils in common use is the very preparation alluded to, and had been most largely employed long before Dr. Leared's paper appeared. To deposit and remove the margarine and some other impurities, is a matter of the greatest ease, and is practised on the spot by many manufaeturers. All that is neeessary is to expose the oil to a low temperature, and then pour off the fluid part. This semi-solid mass (about one-third of the whole) is margarine. Every one must have noticed in the druggists' windows, on a frosty morning, that

the flasks of cod-liver oil have a large, whitish, flaky mass, half suspended in the lower half of the bottle. In these the process of purification, which Dr. Leared's pharmaceutists appear so learnedly to have undertaken for him, is already performing. There are two kinds of oil in the market, one from which, by the manner alluded to, the margarine has been removed, and a second in which it is still present. In the latter, either the oil must not be allowed to be exposed to cold, or it must be frequently stirred. All the Norway oil is, I believe, more or less carefully deprived of its margarine on the spot, where, by the way, on account of the natural cold of the climate, it can be much more easily done than in England. I can most fully confirm Dr. Leared's assertion, that the purified oil is much more readily borne by the stomach than the other. With him, I also believe that it possesses the full virtues of the remedy. Hoping that this information may clear up a grave practical misapprehension,

Finsbury, Jan. 31. I am, etc. R. R. R.

To Query 82.—Eau Sedative.

Sir,—In answer to Query No. 82, about the Eau Sédative, I will state that there are many kinds of such waters. The two principal are composed in this manner :—

1.—℞ Camphor . . . . . 30 grammes (℥i.)
Dissolve in alcohol at 22° . . 250 grammes (½lb.)
Add Liquid ammonia . . . 60 grammes (℥ij.)
Anise oil . . . . . 8 grammes (℥iv.)

This mixture is to be inhaled, and to be applied on a piece of cloth to the forehead, in cases of sick-headache.

2.—℞ Liquid ammonia . . . . . 100 grammes (℥iij.)
Common salt . . . . . 20 grammes (℥x.)
Distilled water . . . . . 900 grammes (nly. 2lb)
Camphor . . . . . 2 grammes (60 grs.)
Essence of roses . . . . . a few drops.

This mixture is to be applied on the forehead like the preceding. I am, etc.

Paris, February 4, 1856. S.

Medical Times & Gazette.

SATURDAY, FEBRUARY 9.

HONOURS TO MILITARY SURGEONS.

As we have, on many occasions, deplored the neglect and indifference too long displayed towards the Medical branch of the Military Service, we now announce, with unmixed satisfaction, the gratifying intelligence, that the honours which were formerly almost exclusively conferred upon the fighting branches of the Army and Navy, have at last been bestowed, and with no very niggard hand, upon our Medical brethren. The *Gazette* of Tuesday last published a list of those who have been deemed worthy of admission into the Order of the Bath, and among them will be found not a few names of those who have been distinguished for their Medical services during the present conflict in the East. Dr. John Hall, Inspector-General of Hospitals, and the Chief of the Medical Department in the Crimea, is made a Knight Commander of the Bath; and Mr. David Deas, Dr. Dumbreck, Dr. Linton, Dr. Forrest, Mr. Alexander, Mr. J. R. Taylor, Dr. Archibald Gordon, and Mr. Mouat, are made Companions of the same most honourable Order.

In congratulating the Profession and the country upon this public recognition of Medical services, we may perhaps claim some credit to ourselves in contributing to produce it; for there can be little doubt, that the efforts of the Medical press have been mainly instrumental in enforcing the claims of our Medical brethren to the consideration of the State. Subjected to the dominion of routine, and deprived of any means for combined operations, the Medical officers of the Army and Navy have too long borne in silence the brand of inferiority which has been fixed upon them; and they have seen, with additional mortification, that in Foreign Armies their Medical brethren have received, at the hands of their sovereigns, decorations and rewards which were denied to themselves. Unlike the great Napoleon, who regarded Larrey as one of the most important functionaries in his army, our military commanders have too often thwarted the efforts of the Medical staff in the field, and neglected them at home; but we hail with pleasure the dawn of a better feeling, and we hope that henceforth the Medical Officers of our Army and Navy will continue to share the honours which are due to merit, whether evinced in leading a regiment or a ship into action, or in assuaging the sufferings entailed upon the sick and wounded. To expatiate upon the sacrifices entailed upon the Medical branches of the two Services,—upon the community of danger from disease, to which the Medical Officer is always exposed,—upon his frequent exertions, even in the thickest of the battle, though himself engaged in the offices of mercy—would be to repeat a thrice-told tale; it is sufficient that our claims to distinction are recognized, and this recognition will console us for past trials, and stimulate the young and the aspiring to new and strenuous efforts.

ARMY MEDICAL DEPARTMENTS.

We formerly gave a sketch of the organization of the Medical departments of the English and French armies (a). We propose now to resume the subject, and to extend our observations to those of other Continental nations. For the information respecting these, we are chiefly indebted to a series of papers by Dr. Fallot, retired Inspector of Hospitals in the Belgian Army.

BELGIAN ARMY.

The Medical department is regulated by a Royal Ordonnance of the 10th March, 1847, and consists of three branches: the Medical, the Pharmaceutical, and the Veterinary. The different grades of which these are composed, and the number of officers of each grade employed on the peace establishment, are shown in the following table :—

Medical Service.	Number of each rank.	Pharmaceutical and Veterinary Services.	Number of each rank.
Inspecteur Général	1	Pharmacien principal ..	1
Médecin en chef ..	4	,, de 1re classe	6
Médecins principaux		,, ,, 2de ,,	10
,, de garnison ..	7	,, ,, 3me ,,	14
,, de régiment ..	28	Inspecteur vétérinaire ..	1
,, de batn. 1re classe	29	Vétérinaire de 1re classe	11
,, ,, 2de ,,	38	,, ,, 2de ,,	11
,, adjoint	20	,, ,, 3me ,,	5

Belgium and Holland seem to be the only countries in which Veterinary Surgeons are included among the Officers of the Army Medical Department. It may be presumed, that in the other armies they form, as in ours, a special branch. In the remainder of this article we shall, therefore, omit further notice of them.

To obtain an appointment as *Médecin adjoint*, the candidate must be a Doctor in Medicine and Surgery, a native of Belgium or a naturalized subject, not under 30 years of age, and must engage to serve six years from the date of his commission. To enter as an Apothecary, he must have undergone with credit the examination necessary to obtain the diploma of civil Apothecary, and must not be under 24 years of age. The promotions to the ranks of *Médecin de bataillon* and *Médecin de régiment*, are made one half by seniority, and one half by selection; the fitness of the candidates for the former

(a) Medical Times and Gazette, 30th December, 1854; 13th January, and 14th April, 1855.

rank being determined by the reports of the chiefs of the service and by the general inspections, and for the latter rank by an examination. These reports and examinations are confined to practical subjects, but in the case of the *Médecins adjoints* they comprise also military Hygiène and Pharmacy. The nominations to the superior ranks are all made by selection. The following statement shows the period of service required in each grade, before the officer is eligible for promotion, but in time of war this may be reduced one half; we have added the relative military rank of the different classes :—

	Must have served in his present rank at least	Promotion by		Relative Military Rank.
		Seniority.	Selection.	
Inspecteur Général ..	—	—	All.	Major-General.
Médecin en chef	2 years.	—	,,	Colonel.
Médecin principal ..	2 ,,	—	,,	Lieut.-Colonel.
,, de garnison ..	3 ,,	—	,,	Major.
,, de régiment ..	4 ,,	One half.	One half.	1st Captain.
,, de bataillon — 1re classe ..	2 ,,	,,	,,	2nd Captain.
,, 2de ,, ..	2 ,,	,,	,,	Lieutenant.
,, adjoint ..	2 ,,	—	—	Sub-Lieutenant.
Pharmacien principal ..	—	—	All.	Major.
,, de 1re classe..	3 ,,	One half.	One half.	Captain.
,, ,, 2de ,, ..	2 ,,	,,	,,	Lieutenant.
,, ,, 3me ,, ..	2 ,,	—	—	Sub-Lieutenant.

The relative military rank is of importance in the Belgian service, as it determines the amount of retired pay and half pay. In calculating their length of service for retirement, the Medical Officers are entitled to count six years, and the Apothecaries three years spent in preliminary studies, before they entered the service. Officers are entitled to an addition of one fifth to their retired pay, if they shall have served ten years, on the full pay of the rank upon which they retire.

The following table shows the rates of full pay, and retired pay of the various grades :—

Ranks.	Full Pay.	Retired Pay.
	£	£
Inspecteur Général	464	200
Médecin en chef	336	128
,, principal	252	100
,, de garnison	220	84
,, de régiment	168	68
,, de bataillon 1re classe	134	
,, ,, 2de ,, ...	100	48
,, adjoint	84	40
Pharmacien principal	186	84
,, de 1re classe	152	68
,, ,, 2de ,, ...	100	48
,, ,, 3me ,, ...	84	40

M. Fallot states that there is great difficulty experienced in recruiting the ranks of the Department; and, certainly, the pay and retirement hold out no great inducements to men of talent to enter it. The regulation by which 30 is established as the minimum age for admission seems injudicious (a). It precludes men from entering at a period when the excitement of a military life might prove a considerable inducement. The shabby half-civil, half-military uniform which is given to them, instead of that of the military officers with whom they are assimilated in rank, probably, also, exerts considerable influence. There seems to be the same feeling in the Belgian as in the French army—though not to such an extent—with reference to the officer charged with the administration of the Hospital. In Belgium he has not, as in France, any control over the Medical officer, but he is independent of him. He has, moreover, the entire control of the orderlies and Hospital servants, and it is only through him that the Medical officer can exercise any authority over them. This is clearly a great defect. Two independent authorities in an establishment cannot work well. As the Medical officer is responsible for the proper care of the sick, he should be able to exert his authority over all persons within the walls of his Hospital, leaving, of course, a power of appeal to his superiors on the part of any who might consider themselves unjustly treated.

(a) The principle involved in this regulation is worthy of remark. In the English and French armies there is an upward limit; candidates must not be above 26 years of age in the former, or 28 in the latter. In the Belgian army it is a downward limit; they must not be under 30, the age at which in England a clergyman becomes eligible to be made a bishop!

THE DUTCH ARMY.

In this service, the Medical officers constitute a separate body, quite distinct from the other corps and from the commissariat, and are presided over by an Inspector, who is in immediate communication with the Minister of War. He superintends everything connected with the Department, and is the adviser of the Minister on all matters relating to the health of the Army.

The Department is recruited from the pupils of the School of Military Medicine, established at Utrecht. The following Table shows the various grades, the number of each employed, their pay, and the corresponding military rank :—

Grades.	Number of each rank.	Rate of pay.	Relative Military Rank.
		£ s. d.	
Inspecteur	1	338 12 0	Colonel.
Premiers Officiers de Santé — 1re classe ..	2	253 12 0	Lieut.-Colonel.
Premiers Officiers de Santé — 2de ,, ..	4	220 1 8	Major.
Officiers de Santé .. — 1re ,,	4	203 2 6	Captain.
Officiers de Santé .. — 1re ,,	6	169 5 6	Captain.
Officiers de Santé .. — 1re ,,	14	135 9 0	Captain.
Officiers de Santé .. — 2de ,, ..	50	84 13 0	1st Lieutenant.
Officiers de Santé .. — 3me ,, ..	50	67 14 6	2nd ,,
Pharmaciens . .. — 1re ,, ..	3	135 9 0	Captain.
Pharmaciens . .. — 2de ,, ..	10	76 4 0	1st Lieutenant.
Pharmaciens . .. — 3me ,, ..	13	59 5 0	2nd ,,
Vétérinaires . .. — 1re ,, ..	1	135 9 0	Captain.
Vétérinaires . .. — 2de ,, ..	7	76 4 0	1st Lieutenant.
Vétérinaires . .. — 3me ,, ..	8	59 5 0	2nd ,,
Elèves.. .. .. — 1re ,, ..	6	25 8 0	—
Elèves.. .. .. — 2de ,, ..	16	16 18 6	—

The promotions are made by seniority up to the rank of *Officier de Santé, 1re Classe;* but to that grade and to the superior appointments by selection. The retired pay of the Medical officers, and the pension to their widows, are the same as those of the military officers with whom they take rank, and their uniform is in every respect the same. They do not form part of, but are simply attached to, regiments—they are, in fact, staff officers.

SOCIETY AND ITS LUNATICS.

THERE are, at the present moment, hundreds, if not thousands, of people in this country, and at large, who are, at least, the subjects of delusions, if not decidedly lunatic. This may at first sight appear a startling statement, but it is nevertheless true, with all its hideousness. According to the Census of 1851, there were, in Lunatic Asylums in Great Britain, 18,800 (a) Lunatics, which gives a proportion to the general population of 1 in 1115. But the census for Great Britain gives no particulars as to the number of Lunatics or Idiots *at large* in 1851; so that we have no direct means of coming to a conclusion upon the subject. The Census of Ireland, however, ("Report on the Status of Disease") throws in some light here, from which certain general deductions may be drawn. According to this document, there were in Ireland, in 1851, 4635 Lunatics and Idiots at large, giving a proportion of one such to every 1413 of the population; and, from the difficulty

(a) This number does not include the Lunatics in Workhouses.

and delicacy of the task of getting such information, we may, at least, consider that the number is not overstated. Adopting, then, this proportion for Great Britain, it may be pretty safely asserted that there are now abroad, under no restraint, except such as their own friends can or may impose, no less than 15,000 Lunatics and Idiots,—many apparently harmless, no doubt; others requiring but little to inflame the morbid passion; and others, again, heaping up their wrath for a fitting opportunity. This is a state of things to which civilized society ought not to be exposed. The general population has a right to be protected from those raving madmen, monomaniacs, and delusionists. Here are our incipient maniac murderers; and yet society takes no cognizance of them, till, it may be, a wretched mother or father stands at the felons' bar, with hands imbrued in the blood of her or his offspring. Then, when the mischief is done, the recollection of all the family and friends is ransacked to get up evidence as to insanity; and the victims of a delusion being already sacrificed, the maniac is *then* committed to safe custody at the expense of the State. Now, there appears to us a growing danger in this state of things. It is well known that there is great diversity of opinion as to the desirableness or policy of capital punishment, and petty jurymen are but men. Twelve men may be perfectly honest, and hold sacred the oath they have taken; but upon them rests the fearful responsibility of sending a fellow-creature to the gallows. Evidence is adduced before them of acts not consistent with a well-regulated mind; the circumstances are coloured by the prisoner's counsel; and we say it is not at all surprising that, acquittal being out of the question, the jury should lean to the merciful alternative, especially as they know it will secure society from further mischief. Hence arises another plea in the mind of the would-be (but not lunatic) murderer; and in proportion to the success of such pleas, will be the danger to society.

The present period has been peculiarly rife in murders; and, with hardly any exceptions, the broad statement is made at the outset of proceedings—as in the case of Bousfield, who this week murdered his wife and three children—"for some time past his conduct has been very eccentric;" or, as in that of the child murder at Sheffield, "it appears that he has been subject to occasional fits of insanity for some time past;" and many other such cases will occur to our readers. Now, is there no remedy for such a condition of things as this? We think there is. Say that there are 15,000 persons abroad in Great Britain certainly demented, and of whom none can prophesy harmlessness. Why should not the evidence as to insanity be available to the State before murder or mischief is committed, as it is available for the prisoner after he has committed murder?

How is this to be secured? We say, pass an enactment that, in no case of murder shall evidence of *previous* insanity be admissible in answer to a charge of murder, unless evidence as to the condition of the lunatic, or as to hereditary mental disorder in the family, has been previously sworn to before a magistrate, justice of the peace, or other such officer; and let it be the duty of the State to provide such security for the public, as each case, after close Professional examination, may call for. Apply such a scheme to the numerous cases which have lately been before the public, and we have little doubt that in all cases of real insanity the lives of the victims would have been saved, no wrong would be done to the demented, and a stop would be effectually put to the trumping up of false pleas of insanity, while some check would be interposed to the propagating of mental disorder by marriage, over which now there is no control. In reference to this latter point we may state that, by the Census of 1851, it was found that in Ireland there were 647 married males, and 1074 married females, lunatics, about a ninth part of whom were at large, and that more than one half of all the lunatics and idiots were at the procreating period of life.

THE WEEK.

Thursday, the 31st January, marked another epoch in the progressive history of the Royal Medical Benevolent College,—the scholars re-assembled after their Christmas vacation. Since that period fifty have been added to their number, making the total about one hundred and fifty. The result of the annual election in May will be to complete the academical department. Six foundation scholars will then be elected, which, added to the nineteen of that class already in the College, will make the appointed number, twenty-five. J. Propert, Esq., the energetic and esteemed founder of the College, and other Members of the Council, welcomed the youths again to the scene of their studies. Since our last visit to the spot, much has been done in the work of improvement. Ample opportunity was afforded to the party to inspect the internal arrangements of the College and the details of its domestic economy. These points we have noticed on former occasions, and it is only necessary now to remark that the school-room and the class-rooms are all that can be desired. Lofty and well-ventilated, they are fitted up with all the most approved appliances for the work of instruction, and with a full regard to the health and comfort of the students. Nothing seems wanting to carry out the intention of the benevolent founder and supporters of the College, which is, that it shall take a foremost position among the educational institutions of the country. The advantages it offers are fully appreciated, for we learn that upwards of one hundred applications have been received more than can be entertained—a fact which, while it testifies to the public confidence felt in its management, indicates also how great was the void in the social economy of the Medical Profession which this institution was designed to fill.

It will be seen from a statement in another column, that the Nightingale Testimonial promises well for the future. The judiciousness of selection which the estimable lady has evinced in the choice of members of her Council, is a guarantee that she will look to the best sources for assistance and guidance,—the Professional element being well represented in the names of Sir James Clark, Mr. Bowman, and Dr. Bence Jones.

It will be seen by reference to another part of our Journal, that the University of Dublin has conferred upon Dr. Andrew Smith the Honorary Degree of Doctor of Medicine. Whatever may be the annoyances which the Chief of the Medical Department of the Army has suffered from the groundless accusations which have been brought against him, he has at least the satisfaction of feeling that he has received the sympathy of his Professional friends throughout the three kingdoms. He has been elected a Member of the Medico-Chirurgical Society of Aberdeen; has been elected a Fellow of the Faculty of Physicians and Surgeons of Glasgow, and now he has received the distinguished honour of a degree from the Dublin University. The evidence of esteem and regard from such influential quarters, affords sufficient proof that Dr. Smith's conduct is satisfactory to those, whom he must be chiefly solicitous to please, namely, his Professional brethren; and the time, perhaps, is not far distant when his claims to the gratitude of the public in general will be made manifest.

The Civil Pathological Commission sent out to Scutari has been recalled, and its members are now on their way home, or have already arrived in Great Britain. In their place, two

Military Pathological Boards have been established, one at Scutari and another at Balaclava, and it will be their duty both to examine morbid specimens, and to ascertain, as far as possible, the causes of disease. We understand that some Medical officers of the Army are also engaged at home in collecting materials for a pathological history of the present war, from the period when the Army first landed on the shores of the Crimea.

It seems that the Government is about to carry out its intention of instituting a new Order—"The Order of Merit"—which is to be confined solely (says the *Globe*) to those who, in the Army and Navy, have exhibited instances of great personal valour. We presume, after the abundant evidence furnished by the public prints, and by private testimony, of the heroic bravery and self-possession of so many of our brethren connected with the war in the East, that no Government will deny the just claims of Medical men to share in all the honours and emoluments which a just and generous public, we believe, would rejoice to see conferred upon its heroic and deserving servants. We cannot doubt, therefore, that our Profession will be fairly admitted, as it is most honourably entitled, to participate in the distinctions of the Order of Merit. It is vain to say that such a distinction would be of little value to the man of science—as if a scientific man were necessarily an isolated being, shut out from those feelings and aspirations which actuate others. But that is beside the question; it is one of right and justice.

It is not without concern that we notice the great prevalence of Typhus Fever at present in the Metropolis. The London Fever Hospital is crowded with patients, and many of the cases have assumed the worst and most fatal character, notwithstanding the great sanitary advantages of this establishment. If the number of typhus cases in the Hospital may be received as an indication of the amount of the same disease outside the walls, a very serious epidemic must, at the present moment, be raging around us, and we have no doubt that such is the case. The appearance of a few fatal cases of cholera would frighten the island out of its propriety, and yet the ravages of Typhus Fever, a disease nearly as fatal, causes but little attention. The causes of Cholera and of Typhus are pretty much the same, and our sanitary arrangements must be sadly defective to harbour such diseases among us; for experience has pretty clearly proved that both are owing to preventible causes, and might be extirpated by enlightened sanitary legislation.

We have heard, with great satisfaction, that the Government contemplates the erection of a Military Hospital upon a very liberal scale, below Southampton, near Netley Abbey, and upon the banks of the Southampton Water. The convenience of the site, provided there be an absence of *malaria*, is perfectly obvious, as Southampton is one of the most convenient ports in our island; and the construction of a pier in connexion with the Hospital will obviate the necessity of any land carriage of the sick or wounded. It is also intended, we believe, to establish a school of Military Surgery in connexion with the Hospital, where the junior Assistant-Surgeons of the Army may become practically acquainted with the duties which they will be called upon subsequently to discharge. We hope that this measure is taken in order to supersede the necessity of retaining the present Military Hospital at Fort Pitt—an establishment which, we hesitate not to declare, is a disgrace to a great nation, Originally intended only for barracks, this building is wholly unsuited for the reception of sick and wounded troops; its wards are low, close, and ill-ventilated; the beds, owing to deficiency of space, are too close together; the accommodation for convalescents is wholly inadequate; its resources as a School of Military Surgery are miserably inefficient. We therefore are rejoiced that our national stigma of having no great Military Hospital is about to be effaced; and we shall hail the erection of the new building as one of the most distinguished efforts of our existing War Administration. We are only in fear lest our rejoicing should be premature, and lest a false spirit of economy should induce our legislators to delay even for a day the completion of this great national undertaking.

The war appears to have caused great fluctuations in the numbers of Medical men in England and Wales. In the *London and Provincial Medical Directory* for 1855, the numbers were 11,867 (including 1528 in the "Supplemental list of persons practising the Medical Profession, who have not made any return of the nature of their qualifications"). This number showed an increase on the previous three years of 560 per annum. In the same Directory for 1856, however, the numbers are (including the supplemental list) 11,032, or 835 less than last year, but the difference principally arises in the supplemental list, which gives a decrease of 808; still, however, the numbers, according to the previous average rate of increase, should have been 12,400, or thereabouts. We have no reason to doubt that the same means have been employed as before to secure returns, nor can we believe that any more negligence has been shown in answer to applications; so that we must fall back on the war in its various requirements, such as Medical Officers, Dressers, and so forth, by which to account for the large decrement appearing in the Directory. The rate of mortality among Medical men, so far as the Metropolis is concerned, during 1855, has been satisfactory. The Registrar-General returns 7 Physicians as having died during the year, 48 Surgeons or Apothecaries, and 5 Medical Students or Assistants. This is at the rate of 1·27 per cent. of Physicians; 1·41 per cent. of Surgeons or Apothecaries; and 0·72 per cent. of Students, etc., while the general rate of mortality for all occupations has been in the same period 2·43 per cent.

REVIEWS.

1.—*The Present State of the Theory and Practice of Medicine.* An Introductory Lecture to the Class of the Institutes of Medicine in the University of Edinburgh. Delivered November 6, 1855, by John Hughes Bennett, M.D., F.R.S.E., Professor of the Institutes of Medicine, and of Clinical Medicine in the University. Edinburgh: 1855. Pp. 23.

2.—*Remarks on "the Present State of the Theory and Practice of Medicine,"* being a Review of Professor Bennett's published Introductory Lecture (University of Edinburgh, Session 1855-6). Communicated to the Hunterian Medical Society of Edinburgh (January 11, 1856). By John M'Gilchrist, M.D. Edinburgh: 1856. Pp. 27.

We owe an apology to Dr. Bennett for having so long delayed any notice of his Introductory Lecture, at the same time we regret this delay the less, as it has enabled us to consider, in the same article, the somewhat singular pamphlet, the voluminous title-page of which is printed above. Whatever Dr. Bennett writes, cannot fail to be interesting to the Profession, and there are very few who have contributed more to our current literature than he has done. Scarcely had he obtained his Medical degree in the University where he is now Professor, when he published in the "Library of Practical Medicine," a series of papers on nervous diseases, which if not enriched by a practical experience which he could not at that time have possessed, evince a laudable acquaintance with the literature of the subject, and show no small self-confidence when regarded as coming from a graduate of not three years' standing. Since then he has published a treatise on Cod-liver

oil, original researches on inflammation of the nervous centres, lectures on inflammation, a treatise on cancer, a treatise on phthisis pulmonalis, the discovery (or appropriation of Virchow's discovery, as it is regarded in Germany) of a disease which he has termed leucocythemia, and other papers too numerous to mention.

We consider it no small advantage to our Profession that one every way so distinguished, should have condescended to communicate his opinion of the "Present State of the Theory and Practice of Medicine," in an octavo pamphlet, and regard his doing so as doubly valuable from its enabling us to obtain some idea of the views on this fundamental subject now prevalent at the celebrated University of Edinburgh.

We confess to having studied with some care the Clinical Lectures published from time to time by Dr. Bennett in the *Edinburgh Monthly Journal*, and to being considerably puzzled by them, so that we turned all the more eagerly to this Lecture as in all probability destined to unfold the secret of his philosophy, and reduce to the level of our comprehension some of the peculiarities of his treatment, which we were quite at a loss to understand.

The Lecture itself has evidently been carefully studied, and has cost its author no small pains. It bears evidence of being the maturer product of his understanding, and yet its perusal has impressed us with the painful conviction, that if taken (as it is intended to be) by the student as his guide in the prosecution of his Professional studies, it will inevitably lead to disappointment.

Dr. Bennett sets out by dividing "the whole field of human knowledge" into "two great divisions"—exact and inexact sciences. He defines the one as possessing, and the other as destitute of, a primitive fact. The physical sciences are given as examples of the former—Agriculture and Medicine, of the latter. Now, had our author been familiar with the strictness of ancient philosophy he would have known that to many of the branches of knowledge included under his classification, the title of Science was altogether refused, and that his division is deceptive, and his comparison vitiated by a knowledge of the fact that we do not know and never can know many of the branches of study so grouped together with the same kind of knowledge. The studies on which Medicine is founded may reach all that high position which, in prophetic vision, he foresees for them; the art of practice may attain all that perfection which he dreams to be yet in store for it, and yet Medicine itself will never assume the same position, nor claim a place in the same category, as those studies to which he refers under the name of physical sciences. Nay, even these physical sciences, when regarded according to the mental condition by which they are recognized are incapable of being classed together, as a very short explanation will suffice to show.

Laws may obviously have two sorts of relation—1st. Their connexion with one another; 2nd. Their connexion with the external world. The relation of the laws of the mind to one another forms the foundation of the pure sciences (grammar, logic, morals, theology, metaphysics), which have, therefore, all the certainty belonging to that which is positive and absolute. In their discussion or study each step of our progress must be an act of the mind, and of the mind alone. In the second class, which deals with our relations to the external world, theory is, for the first time, introduced, and every physical theory must, in some measure, be imperfect, because it is progressive, and we can never have positive assurance that some new discovery may not affect its relations. Those branches of knowledge are usually termed the mixed sciences—Mechanics, Optics, Pneumatics, Hydrostatics, Astronomy. But when laws are applied still more particularly, not to the investigation of the general and permanent properties of all bodies, but to the study of certain partial properties, or of changes in these properties, a new group is formed, we enter the domain of experimental philosophy, and the sciences with which we deal, are denominated "applied." But even among these Medicine can scarcely claim a place. We have denied its position as a science to rank it with manufactures (technology), agriculture, commerce, as a useful art; and, according to the manner in which its study is pursued, will it be found to rise to the high character of a scientific art, or to fall to the low level of an empirical pursuit. Nor does it stand on a basis or platform of its own, it is deduced from a study of Natural History, comprehending the doctrine of living beings, animal and vegetable, with all its subservient branches.

It is apparent that it is a want of a due knowledge of these fundamental principles that has introduced a fallacy which pervades the whole of Dr. Bennett's Lecture, and of which Dr. M'Gilchrist skilfully avails himself, as in the following sentence:—

"Dr. Bennett begins by drawing a distinction between the exact and inexact sciences, and by assigning to Medicine a place among the latter; but in many succeeding parts of his Lecture he loses sight of this important distinction, and, in the most reckless manner, subsequently speaks of Medicine, now as if it were an exact science, again as a mere art."—P. 4.

And yet Dr. M'Gilchrist does not seem to have discovered the source of the error, or, indeed, altogether to have escaped its influence, for he goes on to commit a greater blunder himself, observing—

"Observation and experience are confessedly indispensable to the existence of Medicine; but, inasmuch as observation and experience are common alike to the savage and the Physician, inasmuch as they are in themselves, not sciences in any sense,—so it follows that in as far as Medicine rests on observation and experience it is not in any sense a science."—P. 5.

This we are certainly not prepared to admit. It is evident that the great, and, indeed, the only ultimate source of our knowledge of the laws of nature must be observation and experience; and to deny that to be science which rests upon these, is to limit the term to those which we have already denominated pure sciences, which comprehend only the relation of the laws of mind to one another. It is true, observation and experience do not of themselves constitute sciences, nor does Dr. Bennett allege that they do. True science, when concerned with things external to our minds (mixed or applied science), has to do with objective at well as subjective truth: the savage perceives only the former, the philosopher unites both in one harmonious whole.

As far as this lecture enables us to judge, Dr. Bennett seems to have constructed in his own mind a theory of the growth and advancement of science not unlike that which the author of the "Vestiges" has ascribed to the animate world. There is a series or gradation through which each branch of knowledge must pass before attaining its highest or just position. Medicine is at present an inexact science, but we are probably on the eve of discovering "a primitive fact," which will do for it what the law of gravitation has done for astronomy, or the law of affinity for chemistry!

But if there be any truth in the principles which we set out by affirming, each branch of knowledge has its own place in a determinate system, and beyond that it cannot be raised. Chemistry had no title whatever to be considered as a science, nor could it be admitted to take its stand even with the lowest in any accredited system, until 1786, when Lavoisier, not so much by discovering for it a "primitive fact," as by making it a science of number, weight, and measure, vindicated its claim to the high position which it now occupies. The history of its passings to and fro by the Greek philosophers might have taught an erudite Edinburgh Professor the radical error of applying to a branch of knowledge of a totally different kind the same method which had achieved success in the study of mathematics; and, as Aristotle attempted to find for chemistry "a primitive fact," when he affirmed that "matter, form, and privation" were to be considered the principles of all things, so we can imagine, under such teaching as that of Dr. Bennett, a new race of philosophers ceaselessly toiling to apply the calculus of the exact sciences to Medicine, utterly unmindful that even its highest position is a scientific art, deduced from many separate branches of knowledge, and forgetful of the inherent complexity of the subjects with which it deals, and of the infinite multitude of causes which are concerned in the production of every, even its simplest, phenomenon.

Dr. Bennett must be sadly unmindful of the usual and natural progress of the human mind, and unmindful also of the past history of Medicine, if he really holds the doctrine, advocated in his lecture (pages 11 and 12), that the rapid improvement of medicine *as an art* has arisen, or is likely to arise, from its advancement as a science. Believing, on the contrary, that, although science and art must go hand in hand, and that the one must mutually benefit the other, yet the result of all experience demonstrates that the arts necessarily precede the sciences. It was with some surprise, then, that we came on the following sentence in Dr. Bennett's lecture, and

with some anxiety that we examined his "striking instances:"—

"But let me descend from generalities to a few striking instances of what a study of the theory of Medicine has recently accomplished for the improvement of its practice."—P. 12.

The first instance Dr. Bennett adduces is the method of propagating oysters in the salt lakes of Fusaro!

The second, the method of artificially propagating salmon, as originally shown by Spallanzani (on frogs), and recently introduced as a branch of economics, in regard to salmon, by Coste!!

The third, the metamorphoses which the fœtus of a dog passes through!!!

The fourth, the (alleged) manner of production of tape-worms, and their prevention!

The fifth, the (alleged) vegetable nature of tinea favosa, and its (alleged) cure by keeping the scalp smeared with oil!

These are the "*striking instances* of what a study of the theory of Medicine has recently accomplished for the improvement of its practice." Well may Dr. Bennett, after citing them, remark,—

"But, you may ask, how do all such facts, interesting though they be scientifically, teach us to cure disease?" The question is undoubtedly a natural one, and we cannot but admire the *naïveté* with which the learned Professor thus speaks of his own "*striking* instances."

"At first, indeed," he continues, "this is not apparent, any more than was the use of the latent theory of heat, as developed by Black; or the utility of exciting spasms in a frog's limbs, by bringing them in contact with two metals, as was done by Galvani. But the theory of Black led to the construction of the steam-engine, and the barren observations of Galvani have enabled us to unite France and England by a telegraphic wire through the ocean. And it may be assumed, without the fear of contradiction, that it is such facts as I have alluded to that are silently revolutionizing the study of Medicine."—Pp. 16, 17.

What a fall is here! The facts were, to show us what the theory of Medicine "has recently accomplished" for its practice; they have shown us,—what? Nothing,—absolutely nothing; but have enabled Dr. Bennett to "assume" that such as they "are silently revolutionizing the study of Medicine," with which, let us remark, three out of the five have absolutely no connexion whatever. On this passage, Dr. M'Gilchrist is justly very severe, and criticizes Dr. Bennett in a style that cannot be very grateful to his feelings. We shall only give one extract:—

"There is something that would be ludicrous, if it were not also mournful, in the peep-show magniloquence with which these microscopic wonders, these liliputian attainments are trumpeted forth to a generation of mankind, asking, not for such a kind of glad tidings, but for one grain of hope in the prospect of another visitation of Asiatic cholera; or, it may be, some other disease as new and fatal, before which, when it suddenly comes, theoretical medicine will, not for the first time, stand silent or retreat appalled."—Pp. 15, 16.

But Dr. Bennett seems as fond of false analogy as of inconsequential reasoning. What analogy is there between Black's discovery and the steam-engine, and the impregnation of the spawn of the frog and some undeclared and unknown improvement in practical Medicine? Oh, shame that platitudes of this kind should be palmed off in such a University as that of Edinburgh, and from a chair in which the modest and philosophic Alison once sat!

Dr. Bennett also, even in his most carefully composed productions, has a habit of introducing words and phrases without any apparent appreciation of their real meaning. One example may suffice, though there is scarcely a page of his lecture free from them:—

"The art of navigation, for instance, is certain, because the science of astronomy, on which it is based, admits of exact calculation; and, in consequence, the tempest-tossed mariner, although in unknown seas, may by his instruments ascertain the exact spot his vessel occupies on the surface of the globe. In like manner, the only way of improving the art of Medicine is to advance the science of physiology; and all that has been accomplished during the last fifty years has been brought about in this manner."—Page 12.

So extraordinary a passage, promulgated *ex cathedrâ*, by a teacher of Medicine, cannot be allowed to pass unnoticed. In the first place, it may be inquired, to what the words "in like manner," which usher in the second sentence, refer. Is it, as the grammatical construction would lead us to suppose, to the tempest-tossed mariner finding the exact spot his vessel occupies on the surface of the globe? If so, we can only assure Dr. Bennett that the views contained in this lecture would go far to unsettle the position of the good ship Medicine. Is it that, as the science of astronomy admits of exact calculation, so does, or may yet do, the science of Medicine? To assert this is to betray an imperfect notion of the relative nature of these two branches of knowledge. Is it that, as the art of navigation is certain, because it is based on a science of exact calculation, so the art of Medicine is becoming certain, because its science is incapable of exact calculation? This is a logical fallacy, which even Dr. Bennett might perceive. But we deny that the art of navigation is perfect. One branch of it may be; and while the pilot may be able to calculate with absolute certainty the position he occupies in the watery waste, until he can chain the winds, and rule the waves, he cannot reckon with absolute certainty on being able to pursue a definite course, which, after all, is the object of the art. So it is in Medicine. There are rebellious elements to deal with, over which we can exercise no control; and though that department of it which we style diagnosis were so perfect, that we could tell with absolute certainty the nature of the derangement under which any organ might be suffering; yet might our art be absolutely powerless in modifying that diseased state, so as to restore it to the condition of health.

But what shall we say of a Medical Professor so utterly oblivious of the history, even the very recent history, of Medicine, as to have hazarded another assertion in this pregnant passage, that "all that has been accomplished in improving the art of Medicine" during the last fifty years, has been by advancing the study of physiology!! We ask for examples, and are treated, as we have shown, to the propagation of oysters and salmon, the development of the dog, the proper cooking of food to prevent worms, and the treating of scald head by oily inunction. When a true philosopher seeks instances of the advance of Medicine, he points, as Herschel has done, to the use of iodine in goître, of lemon-juice in scurvy, to the disinfectant powers of chlorine, and its application to the destruction of miasma and contagion; to the anti-periodic powers of Peruvian bark; and lastly, and chiefly, to the power of vaccination in preventing small-pox; and yet for not a single one of these are we indebted to the study of physiology at all!

But we must conclude, without adverting to many other topics which we had marked for discussion. Successfully to perform the difficult task which Dr. Bennett has assigned to himself in this lecture, would demand higher qualifications than he has brought to bear upon it. It would require at least a competent knowledge of philosophical subjects, and a capability of philosophical discussion;—a deeper acquaintance with science than can be obtained from superficial manuals, and a larger experience than even Hospital practice can bestow.

On the Constitutional and Local Effects of Disease of the Supra-renal Capsules. By Thomas Addison, M.D., Senior Physician to Guy's Hospital. London: Churchill. 4to. Pp. 39; with coloured plates.

In this work Dr. Addison announces the doctrine that important local and systemic lesions result from destructive disease of the supra-renal bodies. The observation is we believe entirely novel, and is the result of clinical observation unaided by any *à priori* speculation whatever. The author confines himself strictly to an examination of the evidence before him, and scrupulously abstains from advancing any theory. In a series of eleven cases, all of which are detailed at more or less length, and illustrated by admirable coloured engravings of the size of life, he has found the following conditions to be always coincident:—a brown state of the skin generally,—great and progressively increasing debility without material emaciation,—death within a limited period,—disease of the supra-renal bodies, and destruction of their texture. Having met with no exceptional instance, he ventures the opinion, that the pathological state found, and the symptoms observed during life, bear to each other the relation of cause and effect. He holds that the exact nature of the

disease is of no consequence, all that is necessary being that the organs should be destroyed. In most of the cases cited, the disease appears to have been a fibro-calcareous degeneration, in some complicated with tubercle, in others with suppuration, while in two the organs were affected with cancer. In all the cases the disease ended fatally; a peculiar form of extreme languor and debility preceding death. All the patients were adults. Such are the chief of the conclusions arrived at; but we shall not say more respecting them at present, as the summary to follow the series of cases on this subject now publishing in our Hospital Reports will comprise also an analysis of Dr. Addison's facts, more minute than we could profitably here introduce. As far as the series alluded to has yet proceeded, it gives powerful support to most of the opinions expressed in the work before us. We believe that Dr. Addison has made a discovery, which is one of the most important that practical Medicine has produced for many years, and one in every way worthy of the untiring zeal and energy in Professional pursuits which have characterized his life.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

PARIS, February 4, 1856.

SIR,—The distribution of prizes by the Académie des Sciences took place on Monday, the 28th of January last. The Academy is composed of two distinct parts,—one for the mathematical sciences, the other for the physical sciences. I will point out what is most interesting in the reports on prize essays, relative to the physical sciences. Three reports have been made to the Academy, two by Professor Cl. Bernard, one upon the prize of Experimental Physiology, the other upon essays which have been presented by their authors for the prize of Medicine and Surgery, and a third report by Professor Chevreul upon prizes relative to unwholesome arts and professions. With regard to the last-mentioned subject, the Academy has been very liberal; three prizes have been awarded,—one to M. Duméry, for the invention of an apparatus to prevent chimneys from smoking; one to M. Sorel, for the discovery of an ingenious method of diminishing the danger of explosion in locomotives; and one to Messrs. Boutron and Boudet, for the discovery of a rapid method of finding the exact quantity of magnesia and lime in the water of springs and rivers.

As usual, the Academy did not give the prize of Medicine and Surgery, and, in place of the prize, gave ten *récompenses*. The Academy has a complicated nomenclature of rewards:—the first in importance is the prize, the second is the *mention honorable*, the third is the *récompense*, the fourth is the *encouragement*, the fifth and last is an indemnity to cover expenses. The prize, or a *mention honorable*, for a discovery in Medicine or Surgery, is very rarely given. Usually, the Academy gives a great many *récompenses* and *encouragements*. This year the *encouragements* have been kept secret.

Any one in the world may be a competitor for the rewards of the Academy, and as to those relating to Medicine and Surgery, any one presenting either a published book, or paper, or a manuscript, written in any of the principal dead or living languages, may obtain the prize, or another kind of reward.

The *récompenses* have been awarded this year:—

1st. To Dr. Hannover, of Copenhagen, for his important researches on the anatomy, physiology, and pathology of the eye,—1500 francs.

2nd. To Professor Lehmann, of Leipzig, for his capital work on physiological chemistry,—1500 francs.

3rd. To Dr. Cazeaux, for a paper on chloro-anæmia in pregnant women.

4th. To Dr. Tardieu, for his great work, entitled "Dictionnaire d'Hygiène Publique, et de Salubrité," in three vols.,—1000 francs.

5th. To Dr. Beau, for a paper on the physiology and pathology of the spleno-hepatic apparatus,—1500 francs.

6th. To Dr. Foissac, for his book, entitled "De la Météorologie dans ses Rapports avec la Science de l'Homme, et principalement avec la Médecine et l'Hygiène Publique,"—1000 francs.

7th. To Dr. Béraud, for his researches on the anatomy and pathology of the lachrymal organs,—1500 francs.

8th. To M. Dareste, for his researches on the circumvolutions of the brain,—1000 francs.

9th. To M. Bouquet, for a paper on the chemical composition of the mineral waters of Vichy,—1500 francs.

10th. To Dr. Corvisart, for his researches on the therapeutical influence of pepsin,—1500 francs.

Among the essays rewarded by the Academy, that of Dr. Cazeaux is one of the most important. This distinguished Accoucheur proves that true plethora is very rare in pregnant women, and that a state of chloro-anæmia is frequently mistaken for it. All the symptoms of chlorosis (*bruit de souffle* in the carotids, disturbances in digestion and in the nervous system, and diminution of the globules of the blood) have been found by Dr. Cazeaux in women who had been considered as plethoric; besides, instead of bleeding them, he has given iron and meat, and has cured them.

Dr. Beau, one of the laureates of the Academy, has found some interesting facts about the spleno-hepatic apparatus. One of them is that, in many morbid states of the liver, the passage through this organ of certain alimentary, or other substances, absorbed during digestion, causes pain, and that this pain may be violent enough to be mistaken for an attack of hepatic colic.

This year, the prize of Experimental Physiology has been awarded to Dr. Brown-Séquard. Prof. Bernard finishes his report on the prize-essay of Dr. Brown-Séquard, by the following conclusion: "The experiments of Dr. Brown-Séquard have thrown light upon one of the most important and difficult questions relative to the physiology of the spinal cord; that concerning the transmission of sensitive impressions in this portion of the cerebro-spinal axis. If some facts were already known on this point, Dr. Brown-Séquard has added to them many new ones. He has varied his experiments and has co-ordinated their results so as to solve, in the most satisfactory manner, the question he had proposed to treat. Consequently the committee unanimously award to him the prize of experimental physiology for the year 1855."

The Academy has consented to offer a prize which will be the object of many researches, on account of its pecuniary value, which is 100,000f. (£4000). I am afraid the money will be long in the hands of the Academy, as the question is not likely to be solved soon. The will of M. Bréant, the generous man, who has left this large sum to the Academy, expresses his object in the following sentence: "I establish and give to the Institute of France, a prize of 100,000f., to be awarded to the person who will find a successful treatment of Asiatic cholera, or discover the cause of this disease."

In case no one should be found worthy of receiving the prize, the Academy will have to give every year 5000f. to the person who will discover some means of curing the various cutaneous affections called *dartres* in French.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Edinburgh Correspondent.)

EDINBURGH, FEBRUARY 2, 1856.

THE annual meeting of the contributors to the dispensaries have been held since I last wrote—that of the New Town Dispensary was held on the 17th ultimo, while that of the Royal Public Dispensary took place on the 28th ultimo. Both were held in the Council Chambers, and both were presided over by the Lord Provost. These Institutions are of a similar nature, and have like objects in view, the only difference being that the locality of the former is situated in the centre of the New Town, where the wealthier portion of the community reside; that of the Royal Public Dispensary, amidst the dense masses of the poorer population in the other part of the city. The following particulars will be interesting:—In the New Town Dispensary, 8346 sick persons have received Medical aid during the past year, of whom 6400 attended at the Dispensary, and 2046 were visited at their own residences. In the Royal Public Dispensary, 10,617 persons have been relieved, but the report does not distinguish

between the out and in patients. As no out-patients are attended by the Medical officers of the Royal Infirmary, these Institutions afford important supplementary aid.

We regret to observe that in both these valuable Institutes, while the number of patients applying for relief is increasing, the funds are diminishing.

The scientific circles of Edinburgh have sustained a severe loss by the death of Professor Barlow, of the Royal Veterinary College, a man as much respected for his scientific attainments, as he was beloved for the gentleness and amiability of his character. He died on the morning of the 29th instant, at No. 1, Pilrig-street. About a month ago, he was seized with what seemed a rheumatic attack, which gradually assumed the symptoms of a severe spinal affection. After some weeks of intense suffering, his system yielded to the pressure of excruciating pain, and the virulence of the nervous attack which the ablest Medical skill failed in subduing.

John Barlow was born on the 20th September, 1815, at the Oak Farm, Chawley, Cheshire, which had been in the possession of the family for about 200 years. The subject of this notice early evinced a strong love for animals, and the cows of his father's dairy became more particularly the objects of his special study. This youthful predilection doubtless influenced his choice of a profession, and tended to induce him to devote much of his time to the obtaining of a knowledge of the diseases which affect the domesticated animals. In 1842, Mr. Barlow joined the Edinburgh Veterinary College as a student—no doubt attracted by the reputation of that veterinary school, and its distinguished founder, Professor Dick. After attending two sessions at the College, he obtained his diploma, having been the most distinguished student of the course. The following session he acted as demonstrator, and in 1845 was appointed Assistant Professor and Lecturer on Zootomy—including the anatomy and physiology of the domesticated animals.

Since then, his career has been successful and distinguished. He early saw that the veterinary art had not acquired in this country that honourable position to which it is entitled. He felt, and justly felt, that little had been done to educate and enlighten the public mind as to the relation in which the teaching of veterinary science stood, to the alleviation of the sufferings of the domesticated animals,—sufferings more or less the result of man's ignorance and man's cupidity. He knew that in France, and in several of the German States, a more correct appreciation of the veterinary art had long existed, and that, consequently, Institutions for the dissemination of veterinary knowledge were liberally supported by the respective Governments, while in this country, although possessing the most highly improved breeds of all the domesticated animals, no national provision had hitherto been made for the teaching of the veterinary art. This, however, only stimulated the zeal with which he sought to advance to its due position an art which is alike intimately associated with the interests and feelings of civilized humanity. He knew that the dissemination of knowledge in reference to the structural formation and physiology of the domesticated animals was a noble calling, and he humbly endeavoured to advance that knowledge. Too enlightened, active, and untiring, to rest satisfied with the results of the past, he zealously endeavoured to extend his knowledge of those sciences bearing on the veterinary art. When the daily labour of teaching was finished, he began the prosecution of his own studies. No investigation bearing on physiology, was too irksome to command his careful study. He directed to the pursuit the whole powers of a cultivated, discerning, and energetic mind. Enthusiastic in his profession, he infused the spirit of emulation and desire for improvement into his pupils, by whom his loss is deeply felt.

For several years Mr. Barlow has been engaged in a work upon the Anatomy of the Horse, and the amount of labour he undertook in carrying out investigations bearing on structural formation, made him, in an eminent degree, an accomplished Microscopist. His career has closed before the completion of a work so much required by the Professional student.

John Barlow was a member of the Society of Friends. His career has ever been marked by the principles which distinguish that body of professing Christians. Modest, gentle, and unassuming in his manners, he obtained the respect of all who came in contact with him. Moral worth, and a delicate susceptibility towards the feelings of others, secured to him the warm attachment of a circle of intimate friends.

In the death of John Barlow, Veterinary science has lost one of its most enlightened teachers, and one of its most zealous students.

Our next communication refers to a subject which must possess the deepest interest to all interested in University extension and Medical reform. In former communications we have shown the attempts made on the part of the University of Edinburgh to take the power of admission to the Profession of Medicine out of the hands of the Profession itself and to retain it in their own; the following shows an indirect method in which the same object was sought to be attained.

DEPUTATION FROM THE ASSOCIATION OF GRADUATES TO THE LORD ADVOCATE.

On Tuesday last, January 29, the Lord Advocate was waited on by a deputation from this Association, with the view of bringing under his lordship's notice the objects of the Association. The deputation consisted of Professor Aytoun, M.A., the President of the Association; Dr. Christison; Dr. Simpson; Dr. Bennett; Dr. Balfour; Dr. George Wilson; the Rev. A. C. Fraser, of the Free Church College; G. R. Ogilvy, M.A., advocate; Mr. Andrew Milne, M.A., advocate; Mr. James Sime, M.A.; Dr. Priestly; Dr. Peddie; Dr. Cobbold; Mr. John Glen, M.A.; Mr. Black, M.A., advocate; Mr. P. M'Pherson, M.A.; the Rev. J. H. Wilson, M.A.; and John Carmichael, Esq., M.A.

Professor Aytoun read the following memorial, embodying the objects which the deputation had in view:—

> "To the Right Honourable the Lord Advocate, the Memorial of the Association of Graduates of the University of Edinburgh.

"Your Memorialists beg leave most respectfully to call the attention of the Lord Advocate to the present position of the Graduates of the University, in the hope that the Government may deem it expedient to remedy certain grievances under which they labour, and by conferring certain privileges on them, promote the prosperity of the University, and the general advancement of scholarship in Scotland.

"1. Your Memorialists submit that the Legislature ought forthwith to recognize the right of the Medical Graduates of Edinburgh to practise their Profession in England. In the present anomalous state of the law, a Graduate of the University, although he has passed through a curriculum of Medical studies more extended, and an examination not less stringent and comprehensive, than that of any Examining Board is, notwithstanding, liable to be prosecuted in England, if he venture to exercise his Profession there, either as a Physician or a General Practitioner. Dr. Paris, the present President of the Royal College of Physicians of London, stated some years ago the position of the Scottish Medical Graduates in England thus—'He is only a Doctor by courtesy, and, therefore, cannot claim rank, nor sue for redress, in the Courts of Law.' The value of the title by courtesy, by means of which the Medical Graduates of Edinburgh very frequently attained in England the highest rank in civil practice, has been further affected by two decisions, under one of which it is held that a person created a Doctor of Medicine by a Scotch University, cannot practise as a Physician in England; 'and, under the other, that a diploma of M.D. from a Scotch University is no defence to an action for penalties under the 55th Geo. III. cap. 194, sec. 20, for practising as an Apothecary without having obtained a certificate from the Apothecaries' Company (Apothecaries' Company *against* Collins, 5 car. and p. 519, 1 Nev. and M. 401).' In contrast with this, the Graduates of the Universities, and the members of the various licensing Corporations of England, are in constant use, and have a prescriptive and legal right to practise in Scotland.

"Recently an attempt was made by Mr. Headlam to get a Bill passed, for the regulation of the whole Medical Profession; but, in consequence of the want of unanimity among the various Medical bodies, it was abandoned. In these circumstances, your Memorialists submit that the University of Edinburgh ought to be placed by the Legislature in the same position as that of London, the Medical Graduates of which recently obtained a Bill, conferring upon them all the privileges of Graduates of the Universities of Oxford and Cambridge.

"2. Your Memorialists further submit that the time has now come when some privileges should be bestowed by the Government on the Graduates, so as to render graduation, especially in arts, of more consequence than at present, and promote a higher standard of literary education among the students of the University. In any attempt to reform or extend the University system of this country, it is conceived that attention should be directed in the first instance to the promotion of a higher scholarship. Your Memorialists feel assured that if graduation were followed by University privileges, this object would be to a great extent effected. To restore the idea of a University by uniting the Graduate to it throughout life, might be accomplished by giving the body of Graduates some share in the management of the University. This was suggested in the Report of the Royal Commissioners on the Scotch Universities, and, if adopted, there would be a stimulus given which would effectually excite a desire among the students of the University to attain the honour of graduation.

"But other means are required; it is scarcely necessary to refer to the numerous Fellowships and other privileges enjoyed by the Graduates of the Universities of England, to remind every one of the high prizes and incitements to learning there existing, and the painful contrast which our own University presents in these respects. It may be impossible to obtain for Scotland the same amount of encouragement for learning, but in the present state of our educational institutions, an effort ought to be made in the direction indicated. Your Memorialists conceive, that out of the list of Graduates, a few should be selected as public Tutors, or Assistants to the Professors, especially in the Faculty of Arts, whose business might be to assist those students who may be behind in their studies, and enable the Professors to carry their prelections higher than is at present possible. These Tutors should be appointed for a short period, with small salaries paid by the State. The institution of these Tutorships would produce and foster a body of learned men, who would devote themselves to the cultivation of literature and science as a Profession, and create a strong literary spirit throughout the whole country.

"In addition to Tutorships, some Fellowships should also be founded by Government, and conferred, after competition, upon Graduates of a certain standing. It is conceived that, like the Tutorships, they should be held only for a limited time, and on conditions wholly different from those of England. In the present position of learning in Scotland, the object should be, as already hinted, to increase the standard of scholarship and encourage higher attainments; hence those Graduates who may desire it should be provided with the means of cultivating that branch of learning to which they may be attached. Edinburgh does not present such opportunities, and young men of talent seek them elsewhere; but it is not reasonable that Scotland should neglect the most talented of her youth, while other nations encourage the same class by strong inducements to devote themselves to literature and science.

"Signed in name and by authority of the Association,
"Andrew Mure, Secretary."

The Lord Advocate admitted the justice of the claims urged by the Deputation, and stated that the great hinderance to a settlement of this question lay in the difficulty of arranging the relative claims of the various Medical corporations. If this difficulty could be got over, a Bill might, he said, be introduced even this session, giving the privileges sought. The means of promoting a higher scholarship in Scotland were then discussed, and the institution of Tutorships and Fellowships as a stimulant to the students was urged. The Lord Advocate feared that any scheme involving an outlay of money would not, in present circumstances, be listened to by the Government. He, however, stated his desire, if his Education Bill were successful this session, to take up the whole question of University reform in Scotland, when the claims of the Graduates would be considered.

IRELAND.

(From our Dublin Correspondent.)

Dublin, January 22, 1856.

In the number of your Journal for the week before last, I observe, at page 67, what appears to me to be a most excellent suggestion, and one calculated to be attended with the most important hygienic results,—I allude to the proposal to employ "charcoal freely over every body that is buried." The investigations, however, in which Professor Davy, of the Royal Dublin Society, and his son, Dr. Edmund Wm. Davy, Lecturer on Chemistry at the Carmichael School of Medicine, are at present engaged, would tend to show, that in Ireland especially we possess, ready to our hand, a large supply of a much cheaper, and, for such purposes, more efficacious substance, in uncharred peat, or "turf mould." I have already brought under your notice some observations made by Professor Davy on this subject, and the proposal I have just now quoted from your pages has suggested to me to send you a short abstract of a paper read at the second evening meeting for the present session, of the Royal Dublin Society, by Dr. E. W. Davy, "On the Comparative value of Peat and Peat Charcoal for Agricultural Purposes," which will be found, I think, to bear directly on your proposal.

After having briefly referred to the food of plants, and pointed out the importance of ammonia and carbonic acid in the vegetable economy, Dr. Davy stated the results of some experiments he had recently made in order to ascertain whether peat or peat-charcoal is the more advantageous substance to be employed in making manure from animal excrementitious matter. His experiments were chiefly directed to ascertain which of these two substances is best calculated to retain the ammonia existing in decomposing animal matter. The substance he selected for his experiments was stale urine, which was highly ammoniacal. Having ascertained the amount of ammonia existing in this urine, he mixed an equal quantity of it with equal weights of freshly-made peat-charcoal and of peat, both being in the state of coarse powder; and having placed the mixtures in open vessels, left them exposed to the air for a few days. On examination, it was found that, where the peat-charcoal was employed, more than three-fourths of the ammonia was involved and lost; whereas, in the case of the peat, the whole of the ammonia existing in the urine was retained. These and other experiments, Dr. Davy observed, show the very slight power peat-charcoal has (contrary to the statements which have been put forward in its favour) of absorbing and retaining ammonia under these circumstances; whereas peat possesses this valuable property in an eminent degree, and fixes and retains it almost like an acid. Dr. Davy also ascertained that peat-charcoal decomposes to a certain extent the fixed salts of ammonia, as the sulphate, phosphate, and muriate, evolving the ammonia as the volatile carbonate; which may occasion a still further loss of ammonia in using peat-charcoal in the manufacture of manures. Peat does not possess this property. These facts go to prove the superiority of peat, in its uncharred state, for making manures in reference to the important substance, ammonia. As regards carbonic acid, peat has a decided advantage over peat charcoal, as the former readily undergoes decomposition in the soil, particularly if it is in contact with decomposing matter, giving rise to carbonic acid, and thus supplying the wants of the young plant before its leaves are sufficiently matured to obtain this substance from the surrounding air, and to render soluble various earthy salts required by plants; whereas the charcoal, owing to its being so little liable to undergo change, would, under the same circumstances, furnish only a very minute quantity of this acid, even after the lapse of a long period. Dr. Davy noticed other considerations in addition to peat being only about one-fifth the cost of peat-charcoal, which show that peat has a most decided advantage over peat-charcoal for agricultural purposes; and for sanitary purposes, as a deodorizer, it is as efficient as peat-charcoal.

At a meeting of the Royal Irish Academy, held on the evening of the 14th instant, the Rev. Dr. Todd, S.F.T.C.D., read a letter from Dr. Jacob Grimm, the celebrated philologist of Berlin, an honorary member of the Academy, in reference to certain formulæ or charms in the works of Marcellus, a physician of Theodosius the Great, which seem to be of Celtic origin, and which Dr. Grimm supposes may prove to be the oldest records of the Irish language. Dr. Grimm's letter, inquiring if the ancient manuscripts in Dublin contain similar spells in Irish or Latin, calculated to throw light on those of Marcellus, was referred to the Council of the Academy.

Having been led to mention the name of a distinguished member of the University, I may, in connexion therewith, very

briefly allude to the new museum and lecture-rooms, now nearly completed, which have been built at a cost of £25,000, exclusive of galleries and fittings, by order of the Board, in the College-park, after the designs of Sir Thomas Deane, Son, and Woodward, of Upper Merrion-Street, in this city, who were likewise the successful competitors for the erection of the new museum at Oxford. Though not intended for Medical purposes, these buildings, designed as they are to advance education, must possess an interest for Medical men as members of an enlightened Profession; and educational they are, in every sense of the word. It is not merely that the spacious museum is destined to be filled with objects calculated to enlarge and instruct the mind, or that the walls of the lecture-room shall re-echo the voice of the teacher, the very stones on which they rest are made to participate in the great object of the building, for the pillars and pilasters in the hall, twenty-two in number, constitute a standing museum of the several varieties of Irish marbles, and specimens of the latter in different colours are also exhibited in lunettes or disks, which relieve the piers between the windows. The details of ornamentation, too, both external and internal, are left to the fancy and invention of the workmen, with the sole restriction that they shall use none but natural objects for their models, a plan which, while it is mainly intended to secure variety of design, is also admirably adapted to quicken the latent seeds of talent in many an untutored mind. These particulars may appear minute, but they may also be taken as characteristic of a University, which has shown the importance it attaches to practical matters, by stepping beyond the old routine of abstract education, and introducing such subjects as chemistry into its ordinary curriculum, founding a school of practical engineering, and otherwise adapting itself to the spirit of the age. The origin of these buildings further affords an example of corporate liberality well worthy of imitation. On the passing of the Reform Bill in 1832, an additional Member having been given to the University, the elective franchise which had previously been confined to the Provost, Fellows, and Scholars, in all about ninety-six individuals, was extended to all those who, holding the degree of Master of Arts, or a higher degree, should keep their names on the parliamentary roll. The consequence was that vast numbers flocked to take out the degrees necessary to obtain the privilege of voting, and as the income of the Senior Fellows is partly derived from the fees paid for these degrees, the large sum thus brought in should, in the ordinary course, have been divided among them. With praiseworthy self-denial, however, the money was funded and allowed to accumulate until it had reached a sufficient amount to enable the heads of the University to present their country with the splendid, substantial, and lasting gift just mentioned, which, it is to be hoped, will long stand as an ornament to her capital city, and as a memorial of the judicious liberality of her sons.

During the past week a number of workmen have commenced digging for the foundations of the museum about to be erected by the Royal Dublin Society in Leinster-lawn.

At a meeting of the Dublin Natural History Society, held on the evening of the 11th instant, Dr. Gordon in the chair, Professor Smith read a most interesting memoir on the occurrence of Entero-lithes in the lower animals, of which he brought forward some very curious specimens; and, in the course of his observations, entered at some length into the history of bezoars, or medicine stones. In connexion with this subject the Professor exhibited about half a-dozen alvine concretions, of the size and shape of an ordinary bean, and remarkable for their flinty hardness and appearance, and for the obstinacy with which they resisted the action of the most powerful solvents, as well as for the very small amount of organic matter they contained. They had been found in the colon of a man, aged 74, who had long suffered from hæmorrhoids, and the most obstinate constipation, and died in one of the Hospitals of this city, of an attack of peritonitis, of about forty-eight hours' duration. The concretions were met with immediately above a contraction or stricture of the bowel. It was found, on chemical examination, that considerably more than half their bulk consisted of fixed salts, chiefly phosphate of lime, accompanied with a trace of silica.

Two meetings of the Pathological Society have been held since I last wrote, but, as I fear I have already drawn too largely on your space, I must hold over the abstract of their proceedings to my next letter.

GENERAL CORRESPONDENCE.

CHLOROFORM IN LABOUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—I observe in your Report of the proceedings of the Medical Society of London for Jan. 26, that Dr. Webster is stated to have said, speaking of the administration of chloroform in labour being followed by insanity, that "in a Lunatic Asylum at Edinburgh, that disease occurred in the only case where chloroform was administered in parturition." As Dr. Webster has made the same statement in the *Psychological Journal*, in describing this Asylum, and drawn from it the same inference, namely, that the administration of chloroform during labour predisposes to puerperal mania, I consider myself called upon to correct his misconstruction of the facts, obviously taken from the Annual Report of the Royal Edinburgh Asylum for 1854. In that Report I have stated, "Of the puerperal cases (of mania), one was ascribed to the use of chloroform during delivery; but, of all the cases of puerperal insanity admitted into the Asylum since the introduction of chloroform into Medical practice, amounting to 44, this is the first, and only one, to which this anæsthetic had been administered during labour." It scarcely requires any comment on my part to show that this statement leads to the very opposite inference to that deduced from it by Dr. Webster. The fact that in Edinburgh, where chloroform is more frequently used during labour than in any other city in the empire, out of all the cases of puerperal mania admitted into the public Asylum of the district, during a period of seven years, only one patient had received chloroform during labour, surely leads to the conclusion that the administration of that agent does *not* conduce to the development of this disease. The statement is not, as Dr. Webster reads it, that the only female who took chloroform during her labour became insane, but that of the hundreds of females who took chloroform in labour in Edinburgh during a period of seven years, only one was sent to the Asylum with puerperal insanity, while of those who did not take chloroform, 43 suffered from that disease. If the facts justify any general inference at all, it is the inference that the chances of a female taking puerperal mania after her confinement are reduced in the proportion of 1 to 43 if she takes chloroform.

While I do not contend for such a deduction from the imperfect statistics afforded by the experience of this Asylum, I may add that it is believed by many eminent Medical Practitioners in this city, that the administration of chloroform during labour to females predisposed by previous attacks to puerperal mania, diminishes the risk of a recurrence of that disease. I have known several instances where females had suffered from puerperal mania, and where chloroform being administered during a subsequent labour, they had escaped from this distressing sequel to parturition. In one case with which I became acquainted, the predisposition to mania must have been very great, for the lady had had five attacks of puerperal insanity, after five successive parturitions, but on her sixth confinement chloroform was administered during labour, and she recovered perfectly, without any maniacal attack.

I cannot doubt from these facts, that in cases of tedious and painful labour, as in cases of severe Surgical operations, the administration of chloroform, by lessening the pain, and exhaustion, and shock, incident to such events, diminishes the tendency to all the bad consequences which are most to be dreaded. I am, etc. David Skae, M.D.

Royal Edinburgh Asylum for the Insane, Feb. 4, 1856.

DR. DUNDAS THOMSON AND CONTEMPORARY ELECTIONEERING TACTICS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I regret that what was intended as a simple statement of a fact, in the Meteorological Report to which you refer, should have been susceptible of the harsh interpretation which you have extracted from it. In the passage which has met with your criticism, it had been taken for granted, as an understood meteorological induction, that the climate of the densely populated part of London, near the river, "the

Metropolis of the British Empire" of the paragraph, is considerably modified, when compared with more suburban localities such as you allude to; to such an extent indeed, as to induce Mr. Glaisher to adopt the observations at St. Thomas's Hospital as the representative of the central City climate. The natural inference from the statement appears to me to be, that such an amount of labour, involving many hours of calculation in the reduction of the observations, should not be left to a private individual, but should be a national undertaking, as in the United States, where, if I am correctly informed, there are upwards of three hundred official meteorological stations. I did not refer to the quarterly reports of the Registrar-General, to which I have contributed for upwards of five years, because the labour of their reduction is trifling compared with weekly returns, and because the necessary quarterly corrections and calculations have, for some years, been made by the Assistant Secretary of the British Meteorological Society, under the eye of Mr Glaisher. You have the advantage of me in connecting the Marylebone election with the paragraph in question, through certain other passages in the *Lancet;* since, when the Report was written, I could have no knowledge of the future existence of these laudatory expressions, and when perused they were as novel to me as to yourself. I am, etc.

St. Thomas's Hospital, Robert Dundas Thomson, M.D.
January 30, 1856.

CASE OF SUICIDAL POISONING BY NUX VOMICA.

[To the Editor of the Medical Times and Gazette.]

Sir,—I beg to enclose you a report of suicidal poisoning by Nux Vomica, which occurred in the practice of John Sleeman, Esq., M.R.C.S. Eng., of Southwark-bridge-road, to whom I am indebted for the history, symptoms, and treatment of the case. I am, etc.

Thomas George David Davies,
L.M., M.R.C.S. Eng. and L.S.A.

P.S.—The reagents and means I used for the discovery of the strychnine will, if desired, be communicated in another short paper when my investigations are more complete.

1, St. Andrew's-court, Holborn-hill,
February 6, 1856.

History.—Elizabeth Sims, a maid-servant, 5 feet 8 inches in height, muscular, and well formed, age about 16 years and 6 months, reported by her relatives to be of correct morals, and had never been heard to express any inclination to destroy herself.

She was living in the neighbourhood of the Old Kent-road, and purchased from a chemist in the neighbourhood, half-an-ounce of mice poison, which is admitted by the chemist who sold it to have been powdered Nux Vomica.

She had only been a few days in her situation, and was observed to be low-spirited, and her appetite bad. About half-past ten in the morning of the 25th of January, 1856, she left her mistress's house, and about noon on the same day she reached her grandmother's abode, in a street near Southwark Bridge-road, a distance of about two miles; she was then in a state of great mental excitement; she is described by an aunt, who was present at the time, "as rushing into the room, exclaiming that her mother had been murdered, seating herself suddenly on a chair, and being seized with a frightful fit." Mr. Sleeman was sent for, and he describes her condition; two fits passed away before his arrival, and during the intervals she was perfectly sensible.

Symptoms described by Mr. Sleeman.—¼ past 12. On his arrival, he found the patient lying down, dressed, under the influence of violent tetanic spasms. Her head was drawn backwards; the arms extended; the fingers flexed to the palms; the jaws firmly contracted; the countenance somewhat livid; the eyes open, fixed, and somewhat protruding; the trunk stiff; the legs extended, the feet turned outwards, and the toes flexed to the plantar surface; the skin dry and warm; the respirations loud, almost amounting to stertor; no alvine evacuations took place during the paroxysms or intermissions; the pulse during the paroxysm could not be counted; this paroxysm lasted about two minutes; an interval of perfect sensibility ensued, during which she admitted that she had taken the poison, and expressed her sorrow for having done so, and said that during the fits she suffered much pain. A full dose of the sulphate of copper was administered as an emetic, but did not produce vomiting; Mr. Sleeman was now about to use the stomach pump, but a fresh paroxysm prevented it.

During the interval between the paroxysms, all the limbs were perfectly relaxed, the body pliant—and she was much exhausted; and, occasionally, after a paroxysm of more than usual severity, there was a slight tendency to coma. The countenance pallid; eyes natural; respiration natural; pulse about 80; moderately full skin, warm, and dry. The paroxysms lasted about two minutes, the intermissions about five minutes when first seen; the paroxysms generally increased in severity, the intermissions became shorter, but when complete, consciousness remained perfect, even to the intermission before the last paroxysm, which terminated the severe sufferings of the poor girl, which took place at a few minutes before two; during the last half hour the slightest movement caused a paroxysm, sometimes even an attempt to speak or drink would cause one; she begged to be left alone because of the pain she suffered, as she herself expressed it, "when in a fit."

The treatment consisted in an endeavour to produce an evacuation of the contents of the stomach by one of the quickest emetics (cupri sulphas). The use of the stomach-pump was altogether impossible, owing to the severity and frequency of the tetanic paroxysms. Tannin was given with a view to form an insoluble substance with the strychnia. Cold affusion was freely tried. By this time any attempt to give relief brought on tetanic spasms.

Observations.—In this case it is believed that half-an-ounce of nux vomica was taken, for she said that she had taken the whole of the mice poison that she had bought; she walked two miles after having taken it. If she took it just before leaving her mistress's house, a period of one hour and a half had elapsed before we have evidence of its action. The first symptom manifested to her friends was that of cerebral disturbance, shown by her saying that her mother had been murdered, quickly followed by a tetanic paroxysm, then an intermission with perfect consciousness, followed by alternations of tetanic convulsions; and death took place in less than two hours after the first known paroxysm of tetanic spasm. An inquest was held; the verdict—"that the deceased destroyed herself by Nux Vomica during an attack of Temporary Insanity."

Post-mortem examination, (seventy hours after death,) at noon, January 28, 1856. The body had been lying, about seventy hours, in a warm inhabited room:—

External appearances.—The body was muscular, plump, and well nourished; its entire surface pallid; no gravitation marks of blood-stained patches; the features perfectly natural, resembling a person in a deep and calm sleep; the eyelids quite closed; the teeth of the lower jaw touching those of the upper; the lips only so much separated as to show a very small portion of the front teeth. (When the body was removed from the coffin to the table for examination, no escape of frothy mucus took place from the mouth or nostrils, neither had the jaws been kept approximated by a bandage.) The upper limbs were quite flaccid; but the lower limbs yet rigid, the knees being flexed with difficulty; the toes were flexed to the plantar surface of the feet. The thorax well shapen. The abdomen flat; some excoriations about the mucous surface of the labia, and the hymen absent.

The cranium was hard, heavy, and thick.

Membranes of the brain.—The dura-mater was unusually tough; the sinuses were gorged with dark blood. The vessels of the pia-mater much congested. The arachnoid transparent and healthy.

Cerebral ventricles contained a few drachms of a clear transparent fluid. Vessels at the base of the brain generally congested.

Brain.—Its whole substance was remarkably soft, indeed, almost pulpy. When its substance was cut into, numerous bloody points, of a dark colour, followed the track of the knife. This was more marked in the cerebellum than the cerebrum.

Larynx and *upper part* of the trachea were only so far examined as to ascertain that they were not plugged.

Pericardium.—Quite healthy; no adhesions; about two drachms of fluid of a very slight straw colour. On opening the pericardium, the heart appeared very small.

Heart.—Externally small, with a small quantity of fat upon

it. To the touch, the heart felt quite hard; its structure appeared quite healthy; its smallness may be accounted for by the whole of its cavities being empty. The auricles and ventricles did not collectively contain a drachm of blood. The carneæ columnæ of the left ventricle very muscular. Tricuspid and mitral valves free from diseased deposits, as were also the sigmoid valves, both of the aorta and pulmonary artery.

Pleural sacs, on both sides, contained an ounce or two of blood-stained fluid, and some strong adhesions of old standing on both sides.

Lungs.—Both healthy, but much congested; when cut into, the blood, of a dark colour, welled out of the incised surfaces.

The superior vena cava poured out a large quantity of very dark, quite fluid, blood.

The lower part of the trachea, bronchi, and bronchial glands healthy.

Œsophagus.—Its walls muscular; the mucous membrane, near its lower end, being covered here and there with a small quantity of material, of a brownish colour.

Stomach.—The œsophagus was tied about two inches above the stomach, and about an inch below the pylorus, previous to its removal.

Its peritoneal coat healthy; on opening it, it was found to contain about 30 ounces of fluid, possessing no peculiar odour, its colour of a dull dark olive green, with some flocculent material subsiding to the bottom of the vessel, into which it was poured; the stomach contained no portion of the solid part of an undigested meal.

Its mucous surface towards the pyloric end natural about the middle, and much more marked near the cardiac end were a few red spots here and there, which could not be washed away; a deep dark greenish spot, about four inches in circumference, at the most dependent part of the cardiac end, was in a great measure removed by washing, and found by analysis to consist of a cupreous salt (the sulphate of copper having been used as an emetic). In other parts a few patches of mucus, mixed with a brownish material, adhered firmly to the mucous membrane.

Small intestines.—Throughout their whole length they appeared healthy; two or three small spots in the duodenum, on which was found a brownish material adherent to the mucous surface. The valvulæ conniventes were more than usually prominent.

Large intestines were quite empty; scarcely a trace of fæcal matter found in any part; healthy along their whole extent.

Peritonæum healthy, and contained a very small amount of fluid.

Mesentery healthy, but here and there a few enlarged glands.

Liver: its structure healthy, but gorged with a very dark, extremely fluid blood, flowing from it freely when cut into.

Gall-bladder contained about half-an-ounce of olive green-coloured bile; its taste was not more bitter than usual; its duct was free from obstruction.

Spleen: its structure healthy but greatly congested. Pancreas appeared natural.

Kidneys, healthy and not congested; capsules separating easily. Ureters healthy.

Supra-renal capsules healthy.

Urinary bladder.—Quite healthy, firmly contracted, and quite empty.

Uterus and ovaries.—The uterus was not impregnated, its length was 2½ inches in width, one and three-quarters of an inch broad, at its base, and nearly an inch thick, its weight about an ounce and five drachms (Apothecaries' weight) its internal surface quite healthy.

The ovaries were large, and in the right appeared a spot which might be a false corpus luteum. From the fimbriated extremity of the right Fallopian tube, was suspended by a fine cord about an inch long, a vascular membranous sac, about the size of a moderate horse-bean, which was at first taken for an arrested impregnated ovum, but when tested by a powerful transmitted light, no solid nucleus of any kind could be seen, but merely a transparent fluid contained in a very vascular sac; this sac was punctured with a fine needle; its contents, only a light coloured fluid, escaped. It was examined with a microscope but no sign of an embryo was seen.

The spinal cord and its coverings not examined. So much time had been occupied by the previous examination, that we were compelled to desist.

The medulla oblongata, and first inch of the cervical portion of the cord, soft and pulpy.

ASSIZE FEES TO MEDICAL MEN.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me, through your pages, to bring before the Profession a grievance which exists in this Northern part of England, and I presume in other parts as well—I allude to the small fee doled out to us as a remuneration for attending assize trials. Berwick-upon-Tweed is situated sixty miles distant from Newcastle, where the assizes for Northumberland are held; and a Medical witness must travel thither by such a train that he will not be too late for the Grand Jury, on the first day that the Court sits; and he must remain in the Court-House for one or more days—until, in fact, the case is tried. His remuneration consists of a guinea a-day (with travelling expenses), out of which guinea he must live at an hotel, and keep his house and family at home. Formerly, I understand, the fee was two guineas a-day—why it should ever have been reduced I cannot conceive. In Scotland it is three guineas. Surely something might be done to remedy such a grievance. Probably some of your readers may suggest a plan. I am, etc.

Berwick, February 4, 1856. M.D.

POOR-LAW MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—I thank you heartily for the space you have hitherto accorded me in your columns, and for your powerful advocacy of our cause, which encourages me to request the insertion of a few more words to the Union Surgeons. I would inform them that, though Banbury and Ticehurst are the only Unions that have taken the very judicious course of publishing their meetings and resolutions, I daily receive the most cheering reports from numerous Unions in various counties of England and Wales; letters from fellow-sufferers, full of firm and active resolution; and others, not less valuable, from some whose good fortune has associated them with Guardians of liberal feelings and enlightened minds, but who do not, therefore, shut their eyes in selfish apathy to the injustice endured by others, and the stigma the present position of some affixes to the Profession of which they are members. To those gentlemen who, from pressure of business, a habit of procrastination, or any other cause, may have delayed answering and acting upon my circular, let me repeat the request therein made, that "they would consider it a private letter;" entitled by all the usages of society to a reply.

Let me intimate to them that, next to indifference, delays are dangerous. When we, like good men and true, have fought and won our honest fight, and they reap with us the emoluments of victory, I will do them the justice to believe that they will feel regret at having left us to bear the brunt of the battle, and forfeited by their supineness the proud satisfaction of having done their duty to themselves and others.

I am, etc. Richard Griffin.

12, Royal-terrace, Weymouth,
February 4, 1856.

"SECRET DOCTORS."

To the Editor of the Medical Times and Gazette.

Sir,—Thinking that you would have no objection, through the medium of your Journal, to expose the vile system of the secret doctors, (as they style themselves,) I beg to forward the following, it being a little personal experience.

I am a Dublin student, and being in London on business, went to a certain Anatomical Museum. At the entrance I had a small book given me, stating, among other things, that the proprietor cured secret diseases without the use of mercury. I was of the opinion that it was not a humbug, and that I should like to know his remedy. Having nothing the matter with me, I asked to see the Doctor, and was shown by a negro into the presence of a vulgar-looking man, who asked me to be seated, and at the same time told me a guinea was

his fee, which I paid. Then I told him I had had an attack of syphilis, and was afraid of secondary symptoms.

Without any further ado he commenced phooing and turning up his nose, (which must have been pretty good,) and said, "Sir! you stink of pox! You are full of it. Go away! go away!" I was on the opposite side of the room. He then asked if I had ten guineas; if so he would give me something for it; if not, he could do nothing. I, however, was quite satisfied with losing one. I then told him what I came for, and that I was a Medical student. He then opened a closet at the back, called some one, when I, being near the door, bolted down stairs, knocking over blacky, who tried to stop me. If you think this of any service to you I beg you will insert it. I am, &c.

G. W. L.

P.S. I enclose my card and address as a proof of the truth of the above.

MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your impression issued on Saturday last, the 2nd of February, a correspondent, signing himself "A Country Surgeon," desires to be informed whether there is a probability of a new Medical Bill being introduced into Parliament this session; and he goes on to state that he, in common with many others in practice, have only the diploma of the College of Surgeons, and that if there is a probability of the law being altered, they do not wish to throw away six guineas upon the Apothecaries' Hall; at the same time, he evidently feels the uncertain tenure of his position, and acknowledges he is treated with less consideration than a quack.

Now, Sir, I perfectly agree with your correspondent in thinking it quite time the anomaly of allowing a M.R.C.S. to practise without the licence of the Apothecaries' Society should be done away with. It is not only an injustice towards those who have thrown away their six guineas upon the Apothecaries' Hall, and expended more than six times that sum in preparation, but it is unfair dealing towards the community to suppose a person versed in the anatomy of the human frame only, and thereby qualified to treat dislocations and fractures, is competent to undertake the treatment of fevers, etc., and the practice of physic generally, without having studied those subjects, which his education for the membership of the College of Surgeons does not require him to do.

In the comments you have made at the foot of this letter, I find, Mr. Editor, you suspect there is nothing to be done for the Profession this session. It appears, however, that an attempt is to be made, Mr. Headlam having given notice of his intention to introduce a Bill to amend the laws relating to the Medical Profession.

To attempt to discuss the provisions of this embryo Bill before it is printed, would be a useless waste of time; but let us hope it will not declare persons to be what they are not, and that Surgeons are not to be declared Apothecaries, nor Apothecaries, Surgeons; but that the Bill will leave every one as it finds them, and not be made to confer dignities, or a legal right to practise, upon those whose present status deprives them of that privilege. I am, etc.

M.R.C.S. and L.A.C.

Norfolk, February 6, 1856.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

January 15, 1856.

Mr. Arnott, President, in the Chair.

(Continued from page 123.)

Dr. Peacock and Dr. Bristowe exhibited specimens of

DISEASED CEREBRAL ARTERIES.

The arteries were those from the brain of a female, aged 23, who was admitted into St. Thomas's Hospital, four days after an attack of hemiplegia of the left side. While in the Hospital she was partially conscious, so as to recognize persons and answer questions; but she spoke in a foolish way, and with difficulty. She died four days after her admission, and the day before her death had a second fit, in which she was violently convulsed, and after which she lay entirely insensible, with the left limbs, before paralyzed, rigid. She displayed slight voluntary power over the right arm, but the right limbs were then otherwise relaxed. She had had two fits formerly—one in 1849, and the other in 1853; and had suffered from severe headache at intervals since her first seizure. Her sister had also died suddenly with cerebral symptoms. *Autopsy.*—There was a deficiency of fluid both on the surface of the brain and in the ventricle. There was marked congestion of the surface and substance of the cerebrum, the congestion being most intense in the right and left anterior lobes and in the right middle lobe. In the latter situation there was decided, though not extreme softening, the degree of softening being greatest in the right corpus striatum. In no place was there any definite boundary between the softened and the healthy brain structure. The left internal carotid, from the cavernous sinus to its division into branches, and the commencement of the middle and anterior cerebral arteries, were contracted and filled up by a membranous substance which was pretty completely blended with the walls, and in the centre of that occupying the anterior cerebral was a small collection of thick, white, pus-like fluid. The right internal carotid and its anterior and middle cerebral branches, to the same extent as those on the left side, were filled by a soft, elastic, pale red, adherent, but evidently recent, coagulum. All the other arteries at the base of the brain were healthy. Under the microscope the softened parts of the brain were found to present a perfectly healthy appearance. The material blocking up the left cerebral arteries presented the characters of old and degenerating clot; and that found in the right arteries had the usual structure of a recent coagulum, excepting that incorporated with it were numerous cell-like bodies that were supposed to be due to inflammation. The condition of the lungs showed that there had been some bronchitis. The heart was perfectly healthy, and there were no vegetations on the valves. All the other viscera were in a healthy condition. The view which Dr. Bristowe took of the case is, that the softening of the brain, and the consequent symptoms, were due to deficient supply of blood, and that this deficiency was caused by blocking up of the arteries from inflammation of their walls. The disease on the right side was evidently quite recent, and the real cause of death; but there is evidence, both from the history of the case and the appearances after death, that she had had some time previously a similar attack on the opposite side.

Dr. Bristowe exhibited two specimens to illustrate

THE SEAT OF CANCER.

They were both taken from a case of cancer of the anterior mediastinum, brought under the notice of the Society a few meetings back by Dr. Barker. 1st. *The heart.*—It was small, and its muscular tissue unusually firm and pale, but otherwise it appeared healthy. On a microscopic examination, its muscular tissue was found to be infiltrated with cancer cells. These were in great abundance, and occupied the intervals between the muscular fibres, which, though separated to a greater distance from one another than natural, presented a tolerably healthy appearance. 2nd. *The kidneys.*—These were enlarged and cancerous, the cancerous growth having a tendency to form imperfectly defined tumours. A microscopic examination showed conclusively that the cancer cells were deposited in the matrix of the organ, and that the renal tubes and Malpighian bodies seated in the midst of the cancerous growths had for the most part a perfectly healthy appearance.

Tuesday, February 5.

Mr. Arnott, President, in the Chair.

Mr. Henry Thompson read a further report on a specimen exhibited at the last meeting of a

POLYPOID GROWTH FROM THE VERU MONTANUM.

Since the first communication respecting it he had very carefully examined it. Its structure was precisely similar to that of polypoid growths from other parts. Its length was about

five-eighths of an inch, and it was pedunculated. In its substance were numerous crystals, which had at first sight been taken for lithic acid, but being insoluble in liquor potassæ, and soluble with slight effervescence in acids, were probably earthy carbonates.

Mr. Erichsen read his report on Dr. Van der Byl's specimen of

EXTENSIVE PLUGGING OF THE ARTERIES.

The examination he had made, confirmed, he thought, the opinion he had previously expressed, that the case had been one of idiopathic arteritis and endocarditis. The obstruction of the various arteries had been accomplished in several different ways. Some of the vessels were partially plugged by the effusion of lymph from their own coats, which had adhered where deposited; others, by the forcing on of lymph, thus effused, by the current of the circulation; and others, as in the spleen, etc., by clots probably detached from the heart itself. On the endocardium were portions which had evidently been formed there. The explanation of the non-occurrence of gangrene was to be sought in the circumstance that, where the larger arteries were obstructed, it had been by the first-mentioned method; and that the plugging had taken place gradually, and been for a considerable period only partial.

Dr. Risdon Bennett exhibited a specimen of

TUMOUR PRESSING UPON THE SPINAL CORD.

A woman, aged 40, had first come under his care for incomplete paraplegia in 1854. The paralysis did not involve sensation, and, at the time, she complained of great pain in the back. After some months' treatment she so far recovered as to be able to walk, and left the Hospital at her own desire. For some months following, she went about her household duties. The pain in the back, however, never left her, and, in the summer of 1855, after an attack of profuse uterine hæmorrhage, the paraplegia relapsed. In August she was readmitted. Treatment now availed nothing. The paralysis became complete in the lower extremities, and the upper ones also partly lost motor power, retaining, however, perfect sensation. She would lie constantly on the right side, with the thighs drawn up, and used to suffer extremely from involuntary spasm in the legs. After some months she sank from enormous bed-sores and inflammation of the bladder. The intellect was throughout perfect. The autopsy discovered a tumour nearly an inch in length, within the theca vertebralis of the mid-dorsal region. It was loosely attached to the dura-mater, but inseparably to the arachnoid. It was rather on the right side of the cord, but extended almost round it. It consisted of several cysts, surrounded by fibrous materials, and was itself inclosed in a thin fibrous envelope. Dr. Bennett asked especial attention to the circumstance that improvement, and subsequently a sudden relapse of the paraplegia had taken place—occurrences which, looking at the cause of the disease, it was difficult to explain. There were no signs of inflammation about the tumour or the cord.

Mr. William Adams asked, by what name the tumour should be designated, and suggested that it was one formed originally from a coagulum of effused blood.

Dr. Bennett replied, that he had preferred describing its structure to giving it any specific name. The idea of its being an organized coagulum had suggested itself to some, but was, he thought, negatived by the microscopic examination.

Mr. Hutchinson would venture a suggestion as to the cause of the sudden relapse. The tumour had probably been originally a fibro-cellular one, and had had cysts formed within it by local extravasations of blood into its texture. Now, when the blood had been impoverished by uterine hæmorrhage, (as described) was a time peculiarly likely for such an extravasation to occur, and supposing that it did so, the sudden increase in bulk which the tumour would receive, might quite account for the relapse of symptoms.

Dr. Hillier showed a

TUMOUR FROM THE BRAIN.

The patient, a man of middle age, had died after three weeks' symptoms of pressure on the brain. Death was by coma. At the autopsy, in the anterior part of the left hemisphere, buried in the convolutions, but very loosely attached, was a softish tumour, the size of a goose's egg, well circumscribed and rounded. It was enclosed in a kind of cyst, and the brain structure adjacent to it was not altered to the naked eye in any way. The mass, on section, proved softer than the brain, and readily broke down into pulp. It showed, under the microscope, numerous cells, which, from their large size, diffused outline, large distinct nuclei, and blotched nucleoli, were believed to be those of cancer. The other viscera had not been allowed to be examined.

Mr. Henry expressed a doubt as to the proof that the tumour was a cancer.

Mr. Hutchinson stated that it exactly resembled one shown to him a few days before by Mr. Savory of St. Bartholomew's. In the latter case a tumour, fully the size of an adult's fist, had been removed from the brain of the subject in the dissecting-room. It fell out when the brain was lifted, being attached in the loosest possible way. By its side was one exactly resembling it, but only the size of a walnut. These tumours presented abundance of the cells described by Dr. Hillier, but they differed from those of cancer in that none of them had more than one nucleus. It was a kind of tumour very well described by Rokitansky.

Dr. Hillier stated that in his case none of the cells had more than one nucleus.

Mr. Hutchinson was subsequently appointed to further examine the tumour, and report upon it at a future meeting.

(To be concluded next week.)

MEDICAL SOCIETY OF LONDON.

Saturday, February 2, 1856.

Dr. Snow, President in the Chair.

Dr. Richardson read a short communication on the subject of Fibrinous Concretions of the Heart, in which he took occasion to deny some statements which he said had been made by Mr. Henry Smith—namely, that he (Dr. Richardson) had ridiculed the operation of tracheotomy in croup; and contended that in obstructed respiration a fibrinous clot was the cause of death. He expressed his belief that if the symptoms were referrible to obstruction in the trachea and larynx, and the respiration was unembarrassed, the Surgeon might operate with success; but if the symptoms were those of cardiac obstruction, whether or not complicated with restriction in the windpipe, the operation would be worse than useless.

Dr. Thudichum exhibited a silver spoon, seven inches long, which had been accidentally swallowed. After several stoppages in its course through the stomach and intestines, it was ultimately passed by the anus, without leaving any injury beyond some amount of distension. It was considerably corroded in two places, but in other respects was not much altered.

Dr. Kidd then read a paper on Chloroform.

A discussion then followed on Dr. Kidd's paper, and also on the papers of Dr. Murphy and the President, on the same subject, read at the previous meeting.

The President said, he could not agree with Dr. Kidd in thinking that polypi of the nose and hæmorrhoids should be operated upon in a very early stage of chloroformization. The operation for polypi of the nose caused exquisite pain; and if a full dose were not given in operations about the anus, the patient would kick, and probably embarrass the operator. In midwifery, Dr. Kidd recommended what he called the second stage; but this he (the President) believed would suspend uterine action, so that labour could not go on. The woman who lay for an hour on the table without becoming insensible must have inhaled less than two per cent. of the vapour; for, when the chloroform entered the lungs in the right proportion, it never failed to produce an effect.

Mr. Henry Lee contended that death from chloroform often arose from its action upon the great nervous centres; an opinion which he thought was confirmed by the fact, that animals, and men endowed with but little nervous sensibility, were but slightly affected by the vapour.

Mr. I. B. Brown deprecated the practice of always attributing to chloroform the various casualties which occurred in labour when that agent was administered. The first dose, in midwifery, had the effect of exciting the motor nerves, stimulating the uterus to increased action; and a slight increase in the dose had the effect of arresting sensation. He had often seen labours retarded by giving too much chloroform, so that he had been obliged to give ergot of rye to bring on the suspended uterine action. Among the effects of chloroform which had to be guarded against were, the slowness with

which the uterus contracted to expel the placenta, so that some additional stimulus was required; and a retarding of the secretion of milk. He had never seen a case in which the death of the child was occasioned by chloroform. He never administered the agent in an ordinary, healthy labour; but he thought it should always be given in cases of protracted labour, and where an operation was required. He had observed that when chloroform was administered, the patient recovered more quickly than usual.

Dr. Druitt thought it absurd to give chloroform to a patient merely because she was in labour, and equally absurd not to give it if she was in pain. He considered it perfect Manicheism to suppose that pain was natural to labour.

The authors then replied, and the Society adjourned.

MILITARY MEDICAL AND SURGICAL SOCIETY, FIRST DIVISION, BRITISH ARMY, CRIMEA.

(Communicated by the Hon. Secretary.)

A PRELIMINARY Meeting was held, on the 3rd of January, 1856, at the Medical Head-Quarters of the First Division, at which twenty Medical officers attended.

Deputy Inspector-General Dr. Williams having been requested to take the Chair, addressed the meeting, and commenced by thanking them for responding to his wishes in meeting so numerously, and thereby giving him hopes of realizing a project which he hoped would tend to benefit, not only the Medical officers of the Division, but trusted would also raise our position as Military Medical officers: thus showing to our Professional brethren at home that we are alive to our present position, anxious for the advancement of science, and are not behind the Civil branches of the service, either in experience or successful practice. Gentlemen, he said, a cloud appears to have hovered over us; let us dispel that cloud, and obtain the rights justly due, for we do not think we have been always fairly treated. He believed that such meetings as he intended proposing would be most serviceable: it would bring the Medical officers together, and make those of the Division personally and professionally acquainted with each other, and enable us more perfectly to give that support to the Military Medical Authorities, whom, no matter how much we may differ individually from their opinion, we are bound to assist. There are many subjects of deep interest that you may bring forward for discussion, and, amongst others, he pointed out the state of our Ambulance Corps, not only with reference to the mode in which its duties are, and should be, conducted, but also the improvements that might be proposed, and which ought to emanate from the Military Medical officers. Many other subjects will naturally suggest themselves, and he trusted as we advanced we should find that many of our noble allies, equally anxious for the advancement of science, would occasionally come and join us, thereby cementing more closely an alliance that must ultimately tend to benefit mankind more than any that ever occurred before. He then proposed that a Society be established by the Medical officers of the First Division, Crimean Army, for the purpose of discussing Professional subjects, and that it be called "The Military Medical and Surgical Society, First Division, British Army, Crimea."

Dr. Blenkins, Grenadier Guards, thanked Dr. Williams for the opportunity thus afforded of enabling the Medical officers to become more acquainted, and establishing what, he believed, would tend to produce important advantages, by the means of such a Society as that proposed. He would give it his most cordial support, as through its means it will enable us, not only to become acquainted with our Medical brother officers, but may lead to an acquaintance with our allies, the French and Sardinians, and cause us to become more conversant with their language and practice; and, though distance and weather produced a great drawback in hoping we could expect many to come to our meetings, our inviting them would show a wish on our part to produce that cordiality so much to be desired on all sides.

Surgeon Thornton, 9th Regiment, was then requested to act as Secretary to the Society, and it was decided to meet every Thursday, at 2 o'clock p.m., when papers were to be read and discussed.

Dr. Blenkins, at the request of the meeting, promised to have a paper ready by the next meeting.

[To be continued.]

INSTITUTE OF ACTUARIES.

AT a meeting of the Institute, held on Monday last, a paper was read, written by Mr. Reid, Surgeon, of Glasgow, on

THE PROGRESSIVE RATES OF MORTALITY, AS OCCURRING IN ALL AGES,

AND ON CERTAIN DEVIATIONS;

ALSO ON DR. BUCHANAN'S PHYSIOLOGICAL LAW OF MORTALITY.

The writer, after noticing the remarkably high rate of mortality among children less than 5 years old, denies the truth of the theory that those who die in early life are naturally prone to disease; because, if a child live for any length of time apparently in a healthy state, it must be presumed that that child was born with its vital organs in a fit state for living. Death is accidental, as occurring at all the different ages; if all were equally taken care of, and circumstanced alike, all, *cæteris paribus*, would have about an equal chance of long life. He then proceeded to explain the construction of a table representing the expectation of life at various ages, according to the average of life tables, according to the Registrar-General's returns, and according to Dr. Buchanan's calculation. According to the first theory, a child having attained the age of five has passed the most critical period of its life, and its expectation is then 48 years; according to the Registrar-General's report the greatest probability of life (54 years) is at the age of nine. From this age the expectation of life gradually decreases, both according to the Registrar-General and the life tables, the former being more favourable than the latter, till at the age of 80 and upwards both calculations agree. The author then proceeded to combat the views of Professor Buchanan, of the University of Glasgow, who, in a paper read before the British Association for the Advancement of Science in September last (of which an abstract appeared in the *Assurance Magazine* for January), states that every child at birth contains within itself the seeds of dissolution; so that, although placed in the most favourable circumstances, and exempted from all noxious influences, its life will come spontaneously to an end by natural decay, this decay taking place not necessarily at extreme old age, but at different ages in different individuals. Mr. Reid, on the other hand, attributes the great mortality among infants mainly to accidental causes, as in the case of the inferior animals natural death at an early age is comparatively rare. He also stated that the mortality among infants is greater in towns than in rural districts, and greater among the poorer classes than among those more comfortably situated. This fact alone he considers sufficient to overthrow Dr. Buchanan's theory of an innate principle of decay.

HEALTH OF THE ARMY IN THE CRIMEA.

THE Inspector-General of Hospitals, serving with the army in the Crimea, in forwarding his Weekly Report of Sick for the week ending the 12th January, states—

That the same satisfactory sanitary condition of the Army that has characterized the returns for some weeks back still continues. Affections of the lungs are the most prominent class of diseases at present. Fevers and bowel complaints are few in number, and mild in character; and cholera, I am glad to say, has nearly disappeared, Ophthalmic disease has not spread as it was feared it might do, having made its appearance in certain regiments that had suffered from the complaint on former occasions prior to their arrival in the Crimea. It is a well known fact, that when once ophthalmia has established itself in a corps it is a most difficult thing to eradicate it. On the present occasion, by removing the men from their regiments to the General Hospital at the Monastery, the disease has been arrested for the time being; but, from my experience of the complaints in the Army, I think it will be fortunate if this favourable state of things continue.

An evident improvement in the general health of the Land Transport Corps has taken place, which promises to continue. The men are not so overworked as they used to be; hospital huts have been substituted for marquees, which add materially to the comfort of the sick, and afford them a better chance of recovery, for in wet weather a hut has a decided advantage over a tent. The material comforts of the men of the Land Transport Corps are the same as those of the soldiers, and

they are in every respect put on a footing with them, except in pay, and there, I believe, the advantage is on their side.

The following abstract shows the admissions and deaths under the leading heads of disease during the week embraced by the accompanying return and those of the week preceding :—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	162	9	142	13
Head Affections . .	9	2	7	2
Chest ,, . .	257	6	259	7
Diarrhœa	104	4	88	1
Cholera	2	0	5	3
Dysentery . . .	20	2	20	0
Rheumatism . . .	56	0	50	0
Frostbite	21	1	35	1
Wounds and Injuries	48	1	51	0
Ophthalmia . . .	31	0	26	0
Other diseases . .	406	2	392	2
	1116	27	1075	29

The ratio of admissions, exclusive of Land Transport Corps has been . . . 2·22 per cent.
Of deaths to strength, ditto . . . 0·03 ,,
Of sick to well ditto . . . . 6·22 ,,
Ditto ditto and wounded . . 5·10 ,,
The ratios inclusive of Land Transport Corps have been respectively . . 2·17 ,,
Of deaths to strength, ditto . . . 0·05 ,,
Of sick to well, ditto . . . . 5·89 ,,
Ditto ditto and wounded . 4·98 ,,

This time last year the deaths were 262, or in the ratio of 0·88 per cent., and the sick to well in camp alone 14·47 per cent., for it must be borne in mind these returns have referred only to the sick in hospital in the Crimea, and do not embrace any men who have been sent to Scutari or elsewhere for further treatment or change of air.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, January 24, 1856 :—

Bell, William, Preston, Lancashire.
Meller, Charles James, Brighton.
Sanders, Alfred, Gravesend.
Terry, Edward Bacheler, Wittersham, Kent.
Weston, Edward Francis, Wellington, Salop.

Also, on Thursday, January 31 :—

Beatty, James, Olebury, Worcestershire.
Godwin, James, Romsey, Hants.
Kirk, William, Jun., Hedon, near Hull, Yorkshire.

APPOINTMENTS.

Mr. W. J. Wickham was elected Consulting-Surgeon, and Mr. F. J. Butler, Surgeon, to the Hants County Hospital, at Winchester.

Jones.—Mr. Henry Jones, M.R.C.S., 23, Soho-square, has been unanimously elected Medical Officer to the District of St. James's, Westminster, on the retirement of his father, Mr. H. D. Jones, who held the appointment for upwards of twenty years.

Dr. Septimus Gibbon, Assistant-Physician to the London Hospital, has been appointed, under the new Local Management Act, Medical Officer of Health to the Holborn District.

Mr. Pink, of Deptford, has been elected Officer of Health by the Greenwich District Board of Works, at a salary of £150 per annum.

DEATH.

Steel.—February 1, at Berkhampstead, Herts, R. H. Steel, Esq., F.R.C.S., aged 89, many years Surgeon to the West Herts Infirmary.

Mr. Griffin's Appeal to the Poor-Law Medical Officers.—Meeting of Medical Officers of Uxbridge Union.—At a meeting of the Medical officers of the Uxbridge Union, held on February 5th, 1856, it was unanimously resolved :—1. That the thanks of this Meeting be tendered to Mr. Griffin for his exertions in the cause of the Union Medical officers.—2. That Mr. Warder be appointed local secretary and treasurer.—3. That a subscription of five shillings per quarter be paid to the local secretary.—4. That in the opinion of this meeting it is desirable—1st. That all the Medical appointments should be made permanent, subject, in the case of non-resident officers, to alteration by the Poor-Law Board only.—2nd. That the schedule of remuneration for surgical cases should be extended.—3rd. That the rate of payment for midwifery cases should be fixed by the Poor-Law Board, regard being had to distance.—4th. That the only mode of remuneration which fulfils the necessary requirements of justice to the Medical officer, to the poor, and to the ratepayers, is at per case attended, the amount per case increasing according to distance, to be fixed by the Poor-Law Board; and, with respect to workhouses, the payment to be made at per head on the number of inmates actually inhabiting; the amount per head to be fixed by the Poor-Law Board.—5. That in the opinion of this meeting it is desirable that a memorial, embodying the above suggestions, should be presented to the Poor-Law Board with as little delay as possible. Should, however, any other course appear preferable to the majority of the Union Medical officers, the Medical officers of this Union will do their utmost to promote the success of such other mode as may be generally approved.—6. That a copy of these resolutions be forwarded to each of the Medical journals, and to Mr. Griffin.

Meeting of the Medical Officers of the Ticehurst Union.—At a meeting of the Medical Officers of the Ticehurst Union, Sussex, held on January 28, the following resolutions were adopted unanimously:—1. That the agitation commenced by Mr. Griffin for a more equitable remuneration to the Medical Officers of the Poor-law Unions should be aided. 2. That Mr. Drew, of Roberts-bridge, be the Local Secretary of the Associated Medical Officers of this Union for that purpose. 3. That a subscription of 5s. per quarter of a year, be paid by every Medical Officer of the Union to the Local Secretary for the purposes specified in Mr. Griffin's letter on the subject. 4. That the thanks of the meeting are due to Mr. Griffin for his active and fearless exertions on behalf of the Medical Officers of the kingdom; by the whole of whom he merits to be supported. 5. That in the opinion of this meeting the mode of payment at per case attended, as proposed and recommended by the Poor-law Commissioners, seems to be the best for the Medical Officers, the poor, and the ratepayers; holding out every inducement to the Medical Officers to give their best attention to their pauper patients, and at the same time preventing the Union or parish authorities from giving indiscriminate relief to the sick at the expense of the Medical Officers. Should, however, any other mode of payment appear desirable to the majority of Union Medical Officers, this meeting, convinced of the extreme importance of unanimity, will do its utmost in support of such mode as may be generally approved of. 6. That a copy of the above resolutions be sent to the Medical Journals.—Samuel Drew, Chairman.

Order of the Bath.—Her Majesty has given orders for the following appointments to the Most Honourable the Order of the Bath :—To be an Ordinary Member of the Military Division of the Second Class, Dr. John Hall, Inspector-General of Hospitals. To be Ordinary Members of the Military Division of the Third Class—David Deas, Esq., Inspector of Hospitals and Fleets; Dr. David Dumbreck, Deputy Inspector-General of Hospitals; Dr. William Linton, Deputy Inspector-General of Hospital; Dr. John Forest, Deputy Inspector-General of Hospitals; Thomas Alexander, Esq., Deputy Inspector-General of Hospitals; John Robert Taylor, Esq., Deputy Inspector-General of Hospitals; Dr. Archibald Gordon, Staff-Surgeon of the First Class; James Mouat, Esq., Staff-Surgeon of the First Class.

Royal Institution.—At the General Monthly Meeting, held on Monday, George Busk, Esq., F.R.S., F.R.C.S., Major-General Anthony Emmett, Royal Engineers, and William Baker Taylor, Esq., Surgeon-General, Bombay Army, were duly elected; and Thomas Farquhar Hill, Esq., and Jonathan Rigg, Esq., were admitted members.

Charing-cross Hospital.—The annual statement just issued by the Committee of this Institution shows that in the course of the last year, 17,153 indigent sick persons were

admitted on the books for relief, at a cost of £2724 4s.; of these 1101 were in-patients, and 16,052 were out-patients (many of whom were visited at their own homes, and the greater part were restored to health and to their occupations). The Committee having been enabled to provide some additional wards for sick children, whose cases can be more advantageously treated apart from the adults, earnestly appeal for the moderate addition to the funds which will be required to bring the new wards into useful operation. The number of cases of accident and sudden injuries brought to the Hospital, during the past year, was 2298.

Royal Medical Benevolent College.—We are requested to state that, in consequence of the length of the list of contributions, which has been advertised to appear in our columns this day, its publication is postponed until the 16th instant. Donations and subscriptions, if forwarded to the office of the College, Soho-square, on or before the 13th, will be announced in the forthcoming advertisement.

University of Dublin.—Dr. Andrew Smith.—The honorary degree *(Gradus honoris causâ)* of Doctor of Medicine was conferred, by diploma, on the Director-General of the Army and Ordnance Medical Department at the Spring Commencements, held in Trinity College, Dublin, on Tuesday, the 5th instant.

Metropolis Local Management.—Medical Officer.—On Tuesday a meeting of the vestry of the parish of St. George's, Hanover-square, was held at the Board-room, Mount-street, Grosvenor-square, to consider certain reports of committees, and also a motion by Dr. Brewer in regard to the appointment of Medical officer of health. Dr. Brewer moved that the Officer of Health be appointed in accordance with the instructional minute, relative to the duties and qualifications of district Medical officers issued by the General Board of Health, on the 20th Dec., 1855. He thought it obvious from that minute, that the duties of the Medical officer of Health, are not to be a mere extension of the duties which had hitherto been ably performed by the Medical officers of that parish. It appeared to him that the language of the legislature showed that the object of appointing a Medical officer was, that through him the local sanitary authorities might be duly informed of the causes operating against the public health, in order that such steps as science could devise might be taken for the removal of those causes. 2nd. That the Medical officer should exercise such functions as might devolve on him through the operation of the statute. 3rd. That he should add to the information already possessed as to the sanitary condition of the people and the preventible causes of sickness and mortality. It was clear, therefore, that a very large portion of the duties of the Medical officer of Health was of a preventive rather than a curative nature, and on this ground he contended that it would be inconsistent with the intention of the legislature to have two Medical officers, inasmuch as that intention evidently was that one only should be appointed, who would give up his private practice, and devote the whole of his time, study, and ability, to the discharge of his duties. Mr. Ryde seconded the resolution. An amendment was then moved, that there should be two Medical officers appointed, one for the in-wards, and the other for the out-wards of the parish. A long discussion ensued, and the amendment was carried by a large majority—the numbers being 40 for, and 8 against it.

Report of the Committee of the Nightingale Fund.—The following are extracts from this important document:—"The Committee beg to report that Miss Nightingale was requested—if the offer to place at her disposal a fund to enable her to establish an institution for the training, sustenance, and protection of nurses and Hospital attendants, met with her approval—to name a Council to co-operate with her for that object. She writes as follows:—'Scutari Barrack Hospital, Jan. 6, 1856. Dear Mr. Herbert,— . . . May I, then, beg you to express to the Committee that I accept their proposal, provided I may do so on their understanding of the great uncertainty, as to when it will be possible for me to carry it out. I beg to name the following to act as my Council, in conjunction with yourself and Mr. Bracebridge:—Lord Ellesmere, Colonel Jebb, Sir James Clark, Mr. Bowman, the Dean of Hereford, Sir John M'Neil, and Dr. Bence Jones.' As regards the subordinate and detailed regulations to be adopted in the proposed institution, some remarks made by her appear so replete with sound common sense, that they cannot forbear to quote them. They are as follows:—'The confidence which the subscribers to this fund have shown to me has been so generous and extraordinary, that it is perhaps hardly necessary for me to allude to a very natural letter, which I am told has been printed, to the effect that I must furnish a prospectus of what I am going to do before I can expect to have money subscribed to do it. I think this perfectly reasonable if I originally had asked for the money, which of course I did not. But to furnish a cut and dried prospectus of my plans, situated as I am here, when I cannot look forward a month, much less a year, is what I would not if I could, and I could not if I would. I would not if I could, because everything which succeeds is not the production of a scheme of rules and regulations made beforehand, but of a mind observing and adapting itself to wants and events. I could not if I would, because it is simply impossible to find time in the midst of one overpowering work to digest and concoct another; and if it could be done it would be simply bad, and to be hereafter altered or destroyed.' These words augur well for the practical spirit in which this task is about to be undertaken."

Epidemiological Society.—At a meeting of this Society held on Monday, February 4, a paper was read by Dr. Camps, entitled "Observations on the Cholera Epidemic that occurred in 1854 at St. Laurent d'Aigouse and its Environs, by Monsieur Raymond Talot." The following gentlemen took part in the discussion:—Drs. Ballington, Beattie, Finch, Snow, Greenhow, Seaton, Camps, M'William; Mr. Lord, and Mr. Tucker.

Presentation, by the Working Classes of Kent to John Woolcott, Esq., Founder and Surgeon of the Kent County Ophthalmic Hospital.—One of the most crowded and enthusiastic meetings ever held in Maidstone took place last Wednesday night at the Corn Exchange, to present to John Woolcott, Esq., the Surgeon to the Kent County Ophthalmic Hospital, a superb Testimonial, purchased with funds principally subscribed by the working classes of the county, to show their sense of his services as the founder and promoter of the Institution. The large room was tastefully decorated with evergreens and flags with appropriate mottoes. The proceedings commenced with a tea-meeting, for which the whole of the tickets were disposed of by the Monday previous, 500 applicants being necessarily refused admission. The Testimonial consisted of a bronze group of the Laocoon, three feet high, on a black marble base with bas-reliefs. In the centre is a costly clock, chiming the quarters on eight bells, manufactured by Mr. Bennett, the well-known watchmaker, of 65, Cheapside, as exhibited by him at the recent Paris Exhibition. The case was supplied by Messrs. Jackson and Graham. The chair was taken by W. Lee, Esq., M.P. for Maidstone, who opened the proceedings in a speech expressing the feelings of respect and gratitude, which had induced upwards of 3500 of the working men of Kent to subscribe no less than £157, in acknowledgment of the valuable services which Mr. Woolcott had rendered to the poorer classes of the community as founder and Surgeon of their great Eye Hospital. The Testimonial was then presented by the Secretary, Mr. Saunders. Mr. Woolcott, who was received with enthusiastic cheers, returned thanks, expressing his deep sense of the honour which had that evening been conferred upon him. Several resolutions were then passed, speeches being delivered by many of the leading residents in the county; and, after passing a vote of thanks to the Chairman, the meeting separated. The presentation clock will be exhibited, during the next week, at the Hospital.

The Contumacious Students of the Sorbonne.—The students arrested some since on account of the "row" at M. Nisard's lecture at the Sorbonne, have been set at liberty, and are to be sent to their homes. They are mostly from the provinces. They can continue their studies in Medicine or law, if they think proper, in the departments, but are not to return to Paris, and are to give notice to the authorities of the school. The police agents in plain clothes who were stationed in the hall marked with chalk the backs of the most violent, in order to identify them when they got into the streets. The students discovered the artifice, and without saying anything, marked with chalk also the backs of the agents themselves, so that several of the latter were arrested by the sergens de ville, and in spite of their protestations lodged in prison, and kept there for a whole day and night.

A TRIPLE BIRTH (2 girls and 1 boy) is recorded: the mother is the wife of a journeyman baker, residing at 3, Nungate Cottages, Peckham.

DUBLIN UNIVERSITY.—The following degrees were conferred on Tuesday:—M.D.—William Edward Steele, John Waddy. M.B.—Samuel Reginald Potter, Thomas Alexander Thornhill.

CHATHAM-STREET SCHOOL OF MEDICINE. — The distribution of prizes to the students in the Chatham-street School of Medicine, in the form of scholarships, prizes, and certificates of merit, was made last week, Sir James Kay Shuttleworth presiding. The following is a list of the gentlemen to whom prizes were awarded:—*Scholarships for general proficiency.*—Third year's Student: Mr. W. Sellers, Radcliffe. Second year's Student: Mr. W. Clare, Ashton-unde-Lyne. First year's Student: Mr. Thomas Parker Smith, Croydon. —*Prizes.—Anatomy and Physiology.*—Third year's: Mr. G. Townsend Saville, Nafferton, Driffield. Second year's: Mr. Herbert S. Renshaw, Ashton-on-Mersey. First year's: Mr. Richard Sephton, Wigan.—*Principles and Practice of Medicine.*—Senior class (third year): Mr. E. H. Pitman, Eastbourne; Mr. Thomas Bridge Bott, Bury.—Equal merit. Junior class (second year's): Mr. Christopher Sharp, Farnworth.—*Principles and Practice of Surgery.* — Senior class (third year's): Mr. William Sellers, Radcliffe. Junior class (second year's): Mr. Christopher Sharp, Farnworth.—*Chemistry.*—Junior class: Mr. Thomas P. Smith, Croydon.—*Obstetric Medicine.*—Senior class (second year's): Mr. Christopher Sharp, Farnworth. Junior class (first year's): Mr. Thomas Parker Smith, Croydon.—*Botany.*—Junior class: Mr. Thomas Parker Smith, Croydon. — *Materia Medica.* — Junior class: First prize, Mr. Thomas Parker Smith, Croydon; second prize, Mr. Richard Sephton, Wigan.—*Forensic Medicine.*— Second year's: Mr. Christopher Sharp, Farnworth.—*Practical Chemistry.*—Second year's: Mr. William Clare, Ashton-under-Lyne.—*Certificates of Merit.—General Proficiency.*—Mr. E. H. Pitman, third year's student; Mr. Herbert S. Renshaw, second year's student; Mr. Christopher Sharp, second year's student; Mr. Richard Sephton, first year's student.—*Anatomy and Physiology.* — Mr. Thomas Bridge Bott, third year's student; Mr. William Clare, second year's student; Mr. Walter James Winn, second year's student; Mr. Charles Murray, second year's student; Mr. Thomas Parker Smith, first year's student; Mr. John T. Barrett, first year's student. —*Principles and Practice of Medicine.*—Mr. W. Sellers, senior class, third year's student; Mr. W. Clare, junior class, second year's student; Mr. H. S. Renshaw, junior class, second year's student; Mr. E. Reynolds Chick, junior class, second year's student.—*Surgery.*—Mr. E. H. Pitman, senior class, third year's student; Mr. H. S. Renshaw, junior class, second year's student; Mr. E. Reynolds Chick, junior class, second year's student; Mr. Charles Murray, junior class, second year's student; Mr. William Clare, junior class, second year's student. *Chemistry.* —Mr. Richard Sephton, junior class; Mr. Walter Henry Ramsden, junior class; Mr. R. Brown, junior class. *Obstetric Medicine.*—Mr. E. R. Chick, senior class, second year's student; Mr. R. Sephton, junior class, first year's student; Mr. John T. Barrett, junior class, first year's student; Mr. William Gould, junior class, first year's student. *Botany.*— Mr. Richard Sephton, junior class; Mr. Ramsden, junior class. *Forensic Medicine.*—Mr. H. S. Renshaw, senior class; Mr. E. Reynolds Chick, senior class. *Certificate of Merit in Dissections.—Practical Anatomy.*—Mr. William Sellers, third year's student; Mr. G. Townsend Saville, third year's student; Mr. Thomas Bridge Bott, third year's student; Mr. E. H. Pitman, third year's student; Mr. W. Clare, second year's student; Mr. H. S. Renshaw, second year's student; Mr. Charles Murray, second year's student; Mr. Walter James Winn, second year's student; Mr. Richard Sephton, first year's student; Mr. Thomas Parker Smith, first year's student; Mr. John T. Barrett, first year's student.

MORTALITY NOTABILIA.—949 deaths were registered in London in the week that ended on Saturday, February 2. In the corresponding week of last year the mortality was 1604. The difference is 655. The average corrected number of deaths, derived from the mean mortality for the ten corresponding weeks in the preceding ten years, is 1279; and this number compared with this week's return shows a decrease in the latter of 330 deaths. The state of the public health may, therefore, be considered as remarkably good. Deaths arising from zymotic diseases, of which small-pox, measles, scarlatina, hooping-cough, diarrhœa, and fevers form the principal heads, numbered 228. Typhus shows a tendency to increase, and was fatal to 69 persons. The Registrar of the Islington West sub-district states:—"9 more deaths from typhus have been registered as occurring in the London Fever Hospital." Fever is also stated to be prevalent in the Whitechapel Workhouse, situated in the Mile-end New Town sub-district.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending February 2:—

	Males.	Females.	Total.
Workhouses	48	69	117
Prisons	..	..	..
Military and Naval Asylums ..	4	..	4
General Hospitals	29	21	50
Hospitals for Special Diseases ..	9	10	19
Lying-in Hospitals	1	1	1
Military and Naval Hospitals ..	2	..	2
Hospitals for Foreigners, etc. ..	3	1	4
Lunatic Asylums	3	..	3

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	4	4	3	3	8
North	490,396	3	2	5	11	3	17
Central ..	393,256	3	1	7	9	1	9
East.....	485,522	3	4	4	11	3	23
South	616,635	5	3	13	10	6	12
Total..	2,362,236	15	14	33	44	16	69

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, February 2, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, February 2, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	° 33·5						° 40·5
Mean Temperature.....							
ALL CAUSES	949	433	146	160	175	27	1162·5
SPECIFIED CAUSES	940	433	145	160	175	27	1147·6
DISEASES:—							
1. Zymotic Class	228	154	25	30	17	2	243·8
2. Dropsy, Cancer, and others of uncertain seat	38	7	3	16	12	..	47·5
3. Tubercular Class	167	56	68	36	6	1	186·5
4. Of Brain, Nerves, etc. ..	91	54	7	10	20	..	123·7
5. Of Heart, etc.	38	5	11	9	12	1	43·4
6. Of Respiratory Organs ..	183	80	14	28	57	4	254·4
7. Of Digestive Organs ..	53	17	11	13	11	1	61·8
8. Of Kidneys, etc.	10	..	..	7	3	..	13·4
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	4	3	..	..	8·0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	2	..	2	2	..	8·5
11. Of Skin, etc.	1	..	..	1	..	..	3·3
12. Malformations	4	4	..	..	..	..	3·8
13. Debility from Premature Birth, etc.	26	25	..	1	..	..	28·2
14. Atrophy	27	20	..	1	6	..	25·9
15. Age	44	..	..	..	27	17	58·0
16. Sudden	2	..	..	1	1	..	10·0
17. Violence, Privation, etc...	15	9	2	2	1	1	27·4
CAUSES NOT SPECIFIED.. ..	9	..	..	..	..	..	14·9

BOOKS RECEIVED.

The Edinburgh Medical Journal. February. 1856.

On the Advancement of Midwifery Education in Scotland. By Dr. J. Matthews Duncan. Edinburgh: Sutherland and Knox. 1856.

Hints to Husbands. London: Simpkin, Marshall, and Co. 1856.

Cystic Entozoa in the Human Kidney. By Dr. T. Herbert Barker. London: Hamilton, Adams, and Co. 1856.

TO CORRESPONDENTS.

We are authorized by Dr. Alfred Taylor to state, that the announcement in an advertisement connected with the *Illustrated Times* respecting "the communication of additional particulars of his analyses, etc., in the Rugeley cases," is entirely untrue.

Dr. Walshe's Lecture will be published next week.

Dr. R. U. West's communication on the Ergot of Rye has been delayed only in consequence of the pressure upon our columns.

Mr. Snow's paper on the use of Quinine in Fever is in type, and will shortly be published.

Mr. E. Wilkinson, Aspatria.—We intended to publish Mr. Wilkinson's second letter, and should certainly have done so but we received a third letter from that gentleman nearly as long as the second, and intended as a supplement or a substitute for it. Under these circumstances we have returned both letters to the author, and when he has composed a letter which he deems fit for publication we will insert it. We cannot undertake to supply deficiencies of style and diction in letters written for this Journal, and the authors, not we, are responsible for any errors in this respect; nor can we recompose communications which should be sent to us in a state fit for publication.

Mr. T. Holmes.—The report has been delayed in consequence of the crowded state of our columns.

A District Medical Officer, Bishop Stortford, asks us if a person named Samuel Fowell possesses the double qualification of M.R.C.S.E. and L.S.A. The name does not appear in the "London and Provincial Medical Directory," but this, of course, is no evidence of want of qualification. Mr. Fowell will no doubt afford the necessary evidence of his qualifications, if requested to do so.

George.—The complaint in question is not of a serious nature. By all means avoid the advertising quacks, and seek the advice of some respectable Medical practitioner.

R. G. U.—We believe so.

A Country Surgeon.—The only practical test of proficiency in any science is to be found in a fair examination; and without this test, the public would remain unprotected from ignorant pretenders or mere smatterers in knowledge. Any Undergraduate at Cambridge may think himself equal to Sir Isaac Newton, but it is the examination at the close of his scholastic career which exhibits his true place. In all the departments of public life, it is now admitted that examinations constitute the best guarantee for the proficiency of young men; and it is certainly not now the period for advocating a retrograde course in this particular for our Profession.

John Y.—Do not squander away your money upon the quackish stuff in question.—Apply to a respectable Surgeon, and you will save both your money and your health.

Mr. Hooper's Invalid Cushions and Beds.—We have lately inspected Mr. Hooper's water cushions and beds, which are intended to supersede the use of the water-beds so favourably known in our Hospitals and other public establishments for the sick. The advantages of these cushions consist in the facts, that they are composed of elastic caoutchouc instead of the inelastic material employed in the water-beds; that they are more portable than the latter, as they are not accompanied by any bed-frame; that in certain cases of local injury they exercise a more uniform and unvarying pressure upon the affected part; and that, being of various sizes and shapes, they are capable of local application to diseased parts or organs. One very ingenious form of these cushions, adapted to serious injuries of the spine, is passed under the back in a collapsed condition, and is filled with water by pouring the fluid into the cushion through a long flexible pipe, on the principle of hydrostatic pressure. The bags of caoutchouc are adapted to various other purposes, as for incontinence of urine; and, as they bear a temperature of 300° Fah., they may be employed in cases where dry warmth is found to be useful. Mr. Hooper has received flattering testimonials as to the utility of these appliances from various influential quarters, and especially from the Medical Department of the East India Company's Service; and we understand that large numbers of the beds and cushions have been sent to the invalid soldiers at the seat of war. Without in any way detracting from the merits of the water-bed, we are bound to state that Mr. Hooper's cushions are available in certain cases where the water-bed would be inapplicable, and while carrying out the principle involved in the latter, are adapted to a much greater variety of circumstances and are decidedly superior in certain cases of local disease or injury.

"On Muriate of Opium."

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—I am happy in being able to inform the gentleman who signs himself "A Constant Reader" of the *Medical Times*, in your list to correspondents of February 2nd inst. that the information he requires on the subject above named, "Muriate of Opium," may be found at page 480, of the 17th volume of the *Medical Times* (April 15, 1848); and the formula is thus given: "Take of the best powdered opium ℥j; Muriatic Acid ℥j; distilled water ℥xix.; mix. Shake this mixture very frequently every day, during fourteen days, then strain and filter. The dose is from twenty to forty drops, according to circumstances. Many of my Medical friends have tried this preparation and they highly approve of it." The author of the paragraph is J. G. Nichol, M.D., Crook, Durham.

As I believe the above is what your correspondent requests, I have much pleasure in transcribing it. I am, etc.,

Sutton-Coldfield, February 6, 1856. H. E. Shaw.

The Todmorden Union.—We understand that an action was lately instituted against Mr. Cockcroft, the Medical officer of this Union, by the Apothecaries' Society, on the ground that he was not legally qualified to practise, as he was not a Licentiate of the Society, although a Member of the College of Surgeons. While the action was pending, Mr. Cockcroft presented himself for examination before the Court of Examiners of the Society of Apothecaries, and received his certificate; upon which the proceedings were withdrawn. The suit was instigated by some Medical men in the district, who possessed the double qualification, and who complained of the appointment of Mr. Cockcroft, without his possessing a licence to practise medicine. We do not think it necessary to publish the correspondence we have received, unless Mr. Cockcroft wishes it.

Dr. James Arnott's paper on Local Anæsthesia by Cold is deferred until next week.

Mr. Curling, Ramsgate.—Thanks for the cases. They shall shortly appear.

COMMUNICATIONS have been received from—

Dr. Lionel Beale; Mr. Samuel Drew; R. G. U.; J. W. K.; The Geological Society; Dr. Sieveking; Dr. Todd; Dr. Alfred Taylor; The Kent County Ophthalmic Hospital; Dr. James Arnott; D. B.; Mr. Rosenbaum; Ignoramus; Mr. T. Holmes; A Country Surgeon; Mr. E. Wilkinson; Dr. Perry Dicken; Dr. Baines; Mr. Richard Griffin; Mr. W. B. Kesteven; Mr. Henry Day; Dr. B. W. Richardson; M. D., Berwick; A District Medical Officer; The Western Medical and Surgical Society; George; The Royal Institution; John Y; Dr. David Skae; Mr. E. L. Jacob; S.; Dr. Septimus Gibbon; Dr. R. U. West; Dr. W. Camps; Mr Corner; The Hon. Secretaries of the Epidemiological Society; Mr. H. E. Shaw; Mr. A. W. Warder; G. W. L.; M.R.C.S. and L.A.C.; Mr. Henry Thompson; Dr. Bristowe; Mr. Carver, Cambridge; Mr. Sibley; Mr. Fox; Mr. Dalla, St. Bartholomew's; Mr. Ward; Mr. Cock.

APPOINTMENTS FOR THE WEEK.

FEBRUARY.	Miscellaneous Register.	Society Meetings.
9. Saturday....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	Medical Society of London, 8 p.m. Royal Botanic Society, 3¾ p.m.
11. Monday.....		
12. Tuesday	Operations at Guy's, 1 p.m.	Royal Medical and Chirurgical Society, 8½ p.m. Royal Institution, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy." Zoological Society, 9 p.m.
13. Wednesday..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	Literary Fund, 3 p.m. Royal Society of Literature, 8½ p.m.
14. Thursday....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	Royal Society, 8½ p.m. Royal Institution, 3 p.m.: Professor Tyndall "On Light."
15. Friday	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	Western Medical and Surgical Society, 8 p.m.: Dr. Cumming "On Cases of Bronchitis successfully treated by Acid Inhalations." Royal Institution, 8½ p.m.: Professor Huxley "On Natural History, as Knowledge, Discipline, and Power." Geological Society, 8 p.m. Anniversary at 1 p.m.

ORIGINAL LECTURES.

CLINICAL COMMENTARY
ON A
CASE OF CIRRHOSIS OF THE LUNG AND BRONCHIAL GLANDS.

DELIVERED BY

W. H. WALSHE, M.D.,
Professor of the Principles and Practice of Medicine, and of Clinical Medicine in University College, etc.

A man, aged 68, for years a sufferer from chronic cough, in other respects free from positive disease, is obliged to leave off work from its increased severity. Admitted ten weeks after this, the evidences of chronic disease of the right lung of the contracting class are found,—presumedly cirrhosis. Enfeebled by copious expectoration, and obstinate diarrhœa, he sinks under an ill-defined attack of pneumonia about three months after admission.

John Sharman, aged 68, admitted January 19, 1855; 5 feet 8 inches in height; labourer; married; childless; always well fed and clothed; born at Great Clacton, Essex; lived in London for the last forty-six years, in dry and comfortable houses. Father and mother dead,—mother of jaundice, aged 61; father aged 55, of cause unknown;—one of sisters suffers from cough for some years.

Patient has had variola; cholera in 1851. Has not had rheumatism, acute or chronic; measles nor scarlatina; syphilis nor gonorrhœa. For many years a sufferer from chronic cough; this increased so much ten weeks before admission, as to oblige him to leave off work; expectoration habitually copious, never bloody; sleep commonly good, now disturbed; never night perspirations; post-sternal pain.

Present state.—On back; sleeps on *right* side, has done so for years; no look of suffering; face flushed; tongue reddish, too smooth, slightly furred behind; bowels confined; flatulence; respiration 32, steady, equable; no subjective dyspnœa; trifling aching at left mamma; cough frequent; sputa profuse, running into one mass, muco-purulent, ash-green, free from blood in any form; percussion under *left* clavicle extra-resonant, under *right* high-pitched, tubular (with firm, wood-like resistance under the finger), which peculiar quality reaches, transversely, half-way between the right edge and middle line of the sternum at the top of that bone. Auscultation under *right* clavicle;—heart's sounds, especially second, singularly loud; respiration in first space divided, bronchial expiration lower pitched than inspiration, hollow in quality when the mouth is shut, but without metallic ring; no rhonchus; strong diffused bronchophony; nothing significant of excavation; under *left* clavicle and downwards respiration exaggerated. Posteriorly:—Right supra-spinous fossa strikingly sunken; percussion tubular in this fossa, hard, high-pitched, very resistant, wooden all over right back, and tubular in axilla; extra-resonant in left back; respiration as under clavicle, but louder and hollower; whispering pectoriloquy right supra-spinous fossa; vocal fremitus less at right posterior base than left; lower interspaces both sides, especially right, very deep; ribs not twisted downwards; pulse 112, regular, small, slightly yielding, vessel tortuous, and pulsation slightly visible at right wrist. Heart's impulse not to be traced with any certainty either with eye or hand to the left of the sternum; the impulse, more marked at the right than the left costal angle, exists practically only in the third, fourth, and fifth right interspaces extending from the sternum to the right nipple; the sounds, strong to the right, weak to the left, of the sternum, are free from murmur. No head-symptom of any kind. Emplastrum lyttæ sterno; misturæ tinct. camph. co. (Ph. nosocom.) ʒj. quater quotidiè.

Jan. 25.—Expectoration less disposed to run into one mass; less purulent-looking; muco-glairy in some parts; cough less; no pain except trifling aching at *left* mamma occasionally.

Feb. 3.—Can now lie well on either side. Mensuration, on the level of fourth interspaces, close to the sternum, gives the following results (man right-handed):—

	Medium.	Inspiration.	Expiration.	Play.
Right	15¼	15⅝	15⅛	½
Left	15⅛	15⅞	14⅞	1

15.—Diarrhœa.

24.—Abdomen rather excavated; no tenderness on pressure in iliac fossa or elsewhere.

27.—Only one or two motions for last day or two.

March 6.—Losing diarrhœa wholly; feels much weakened; can scarcely stand.

10.—Emaciation greatly increased; sputa, in part, bottle-green in tint, almost inky; not a trace of blood to naked eye in them.

17.—Diarrhœa ceased; expectoration less; emaciation increased; weakness extreme.

27.—General look improved; feels stronger; feels better; sputa much reduced in quantity.

31.—Strength so much improved, he has been up.

April 5.—Strength and local symptoms still further improved.

21.—Skin hot, face flushed; feels feverish; tongue hot, furless; pulse 88, respiration 28; one motion daily; no pain anywhere; expired air fetid, somewhat savouring of gangrenous odour; rather fine moist rhonchus, principally inspiratory at left inferior back.

28.—Expectoration diffluent, almost watery in consistence, yet in colour purulent, odour very fetid, but not gangrenous. He thenceforth gradually sank, without any new symptom, and died April 30, at 6·15 p.m.

May 1.—*Sectio Cadaveris* 19 hours after death, intervening weather sharp, dry changed to damp; cadaveric rigidity in lower extremities; slight œdema of lower extremities, more right side than left; slight green discoloration of abdominal wall, mainly in iliac region; moderate posterior vinous staining; emaciation extreme, digitations of serratus clearly defined under skin.

Abdomen and Chest opened—Position of Organs.—Right wing of diaphragm reaches to fourth rib, left to fourth space; liver-edge a quarter of an inch above costal margin in the vertical line of nipple; anterior edge of *left* lung reaches to the exact spot where a long needle had been introduced before opening the chest, and where percussion indicated that edge reached to, namely (on the level of the second rib), to the outer edge of the second *right* costal cartilage, or an inch and a quarter beyond the right edge of the sternum; no part of the heart lies further to the left than about an inch and a quarter to the left of the mesial line; a needle which had been driven into the right fourth interspace, directly below the nipple, is found to have transfixed the right ventricle, leaving about one inch of its substance at the base to the right of that needle; the organ looks as if carried *en masse* from one side to the other of the chest, not twisted at the apex, from the base as a centre.

Thoracic organs.—Left lung, firmly adherent, almost from base to apex postero-laterally, apex free; these adhesions, old, and infiltrated with gas and serosity. Anterior surface healthy-looking, a small patch of recent lymph here and there, large towards diaphragm; posterior congestion; section of inferior lobe irregularly mottled of dirty brick red, greyish, and pale yellowish. Some lobules firmish, are infiltrated with a greyish yellow and somewhat reddish material. The greater part of this lung is easily torn, highly infiltrated with frothy serosity, and exhales the same fetid odour as that of the breath and sputa during life. Pressure breaks up the substance into a detritus, which first swims then sinks in water. These characters exist in the whole of lower lobe, except quite in front, and also in the lower part of the upper lobe; the apex healthy; no tubercle nor grey granulation; organ weighs 33½ oz.; measures, from apex to centre of base, 9½ inches.

Right lung, most closely adherent to pericardium, diaphragm, and side; lies posteriorly, forming, as it were, a bed, on which the heart, and great vessels at their origin, lie; the adhesions are very thick at diaphragm and towards posterior mediastinum. Accidental tear of apex in removal has a peculiarly smooth look, as if cut—an appearance depending on the great infiltration of the interlobular tissue with induration-matter. The lung having been divided from apex to base, the eye is at once arrested by three things:—dilatation of the bronchi, large size of the divided vessels, and infiltration of tissue with white, glistening, induration-matter. Induration-matter is accumulated between the lung and costal surface in some spots to the depth of upwards of quarter of an inch, is puckered, vascular to the naked eye, creaks under scalpel, excessively tough, and can, even with rough manipulation, be separated

from the pulmonary pleura, without injuring this; main bronchus dilated, of deeply red colour, walls thickened, cartilages hypertrophous. Following this bronchus, irregular dilatations are perceived, one after the other, with comparatively narrow spaces between of natural calibre. The cirrhosed infiltration is so marked in some parts of apex and posterior base, that all trace of lung-substance has disappeared. At the lower anterior part of the lung is found an excavation as large as a hazelnut, filled with thick pus—whether a true cavity or bronchial dilatation, to be determined by close examination. No tubercle nor grey granulation. Height of lung about 7 inches; weight, with pleura attached, 31 ounces.

Heart.—Fair amount of sub-pericardial fat; measures at base transversely 4¼ inches; height of ventricles, 4 inches; thickness of left, 2 inches; right auricle contains a pale, closely-attached and interlaced coagulum, weighing 1½ ounce; is dilated; its endocardium abnormally opaque; its musculi pectinati hypertrophous; in auricular septum, protruding into right auricle, is a distended, clot-filled vein. Tricuspid orifice admits thumb and points of four fingers; two divisions of the valve rather thickish and opaque. Right ventricle: infundibulum filled with firm fibrinous clot; pulmonary artery thin; measures at edge of valve 3½ inches; valves sound; no atheroma. Left auricle, rather under than over natural opacity for a subject of this age; mitral orifice puckered (as also tricuspid), yields under pressure of fingers; capacity of left ventricle small; substance of wall of brown-paper colour, friable; apices of papillary muscles partially converted into induration-matter; valve looks competent. Aortic valves competent, measuring at free border 3 inches, thickish, less pliable than natural; much atheroma in aorta and valves. Heart, with an inch of great vessels, weighs 11 ounces. *Bronchial glands* enlarged; one, the size of a large walnut; general surface of section greyish; towards centre, however, infiltrated with a whitish substance, much firmer than the substance of the gland, evidently identical in character with that infiltrating the lung.

Abdomen.—Omentum majus sends off from its margin a process which, coiling on itself, forms a kind of bag, wherein several coils of small intestines are enclosed; this, with the mesentery, forms in front of the spine an arch, under which portions of intestine must from time to time have been imprisoned. *Liver.*—Measures 10 inches by 7½, by 2¾; fragile; considerable congestion of large veins; injection both portal and hepatic of lobules; gall-bladder small, though it hangs below the free edge of liver; small quantity of bile; weighs 54 ounces. *Kidney, right.*—Weighs 4 ounces; measures 4 inches by 2, by about 1; section coarse-looking, especially the intertubular cortical substance; peripheral cortical substance very narrow; pelvis somewhat injected; texture hard; cortical portion looks infiltrated with whitish yellow material. *Kidney, left.*—A little larger than fellow; otherwise the same. *Small intestine.*—Irregularly injected; capilliform and arborescent vascularization from place to place; mucous membrane, throughout free from softening, presents no ulceration or even abrasion.

Commentary.—§ I. In commenting on this interesting case, Gentlemen, it is not my intention to dwell on the morbid anatomy, or general pathology, of the disease, of which it furnishes a striking example. These have been ably handled by the original deseriber of the affection, Dr. Corrigan. My purpose, to-day, will rather be to direct your attention to the clinical aspects of the disease, more especially to its diagnosis. It is precisely in this point of view our knowledge is most imperfect, insomuch that it may be confidently affirmed, instances of the successful detection of the disease during life are, in all probability, very rare.

§ II. We had here, obviously, to do with a case of chronic pulmonary affection, diminishing the bulk and respiratory play of the right side, and leading to marked displacement of the heart: this organ being partly drawn, partly pushed, towards that side. At the same time, the evidences were as strong as they can probably ever be, that the non-affected lung had undergone hypertrophous enlargement. Now, the only pulmonary diseases I know of answering to this general description are,—chronic pleurisy with retracted side, simple general collapse of the lung, cancerous infiltration, or tuberculization of the organ, chronic pneumonia, and cirrhosis. Let us consider the claims of all the six.

1st. As regards chronic pleurisy. There appeared no history of pleurisy in the case; but this negative evidence was not to be trusted to, for, on the one hand, the past medical life of the individual was most imperfectly made out; and, on the other, pleurisy might have existed, and been absolutely latent at the time of its occurrence. But,—without denying the presence of old pleurisy altogether, conceding this, indeed, and recognizing the great probability of its playing some part in producing the physical conditions before us,—I rejected such pleurisy as the total cause of these conditions for the following reasons:—The side was retracted *generally;* now, this is very rare from pleurisy alone. In chronic pleurisy, the shoulder falls, and the inferior angle of the scapula tilts outwards, so that often the hand may be slipped between it and the chest-wall; neither of these conditions existed in Sharman; neither were his ribs twisted notably downwards and inwards, as they would have been had his chest been sunken from chronic pleurisy alone. Again; had this disease been the cause of the enormous displacement of the heart to the right, the amount of retraction of the side would have been greater. The symptoms, too, were of graver character than is usual in cases of chronic pleurisy, even with superadded bronchitis. These were the grounds of my refusal to admit that chronic pleurisy alone existed. You observe I lay no stress on, I do not even refer to, the tubular and hollow class of physical signs, diecovered by auscultation and percussion, as militating against the diagnosis of shrunken pleuritic lung. And why? Because we know from experience in the wards and deadhouse that, under certain acoustic conditions, as yet most imperfectly understood, tubular — nay, amphoric — percussion-note and pectoriloquy of typical perfection may be heard in simple consolidation, where no positive evidence exists of even slight bronchial dilatation,—articulated pectoriloquy so perfect, that softly-whispered words shall be as well distinguished through the stethescope, applied to the back of the chest, as by the ear, held within a short distance of the patient's mouth.

2nd. Was the left lung in a state of simple collapse? Setting aside the extraordinary rarity of general collapse of the lung, it appeared we might reject this hypothesis; because, under such circumstances, the percussion-note would have been dull, not wooden and high-pitched, or tubular, as in Sharman; auscultation, too, would have given weak or distant bronchial respiration, not as here the hollow class of phemena, because softish collapsed tissue must be inapt for reflecting and reinforcing sound. Lastly, I only know of collapse, on this large scale, as a result of pressure on a main bronchus by tumour or aneurism. Now, we had no reason to suppose either of these diseases present.

3rd. Could the case be one of cancerous infiltration? The amount of reduction of bulk of the affected side, the condition of the ribs, the limitation of the disease to one lung, especially the right, while the other had sequentially become hypertrophous, the patient's habitual decumbency, and, with an exception to be by-and-by mentioned, the general character of the physical signs, the sex and age of the patient, were all of them accordant with such an idea. But, on the other hand, the heart appeared to be displaced too much to the right; there were no signs of internal pressure from associated mediastinal tumour, there were no cancerous growths in any other part of the frame, the patient's aspect was not cancerous, there had been no hæmoptysis nor jelly-like expectoration of the red or dark tints, no thoracic pains of importance, and less dyspnœa than is usual in cancer of the lung; while the duration of the disease, apparently for several years, seemed too great for that affection, which scarcely ever lasts more than, and very rarely so much as, two and a half years. Besides had the right lung been cancerous, its morbid sound under percussion should have reached to, and in all probability beyond, the middle line in front, whereas in Sharman's chest the existing alteration of percussion-note did not even reach the middle line. Here seemed a body of evidence sufficient to set aside the idea of cancer,—though no single one of the facts adduced is, taken alone, fatal to the hypothesis.

4th. Tuberculization of the right lung, as the cause of the clinical conditions observed, derives support from the following facts. Although the percussion-note was perhaps more wooden and high-pitched than is usual over softening tuberculous infiltration, the physical signs were, as a whole, sufficiently reconcilable with this idea of the disease. The emaciation, the hectic flush, the pulse-respiration ratio (the mean of four days being 3.5 : 1), the naked-eye characters

of the expectoration, and the obstinately recurring diarrhœa, all seemed to favour the notion of phthisis. But we, nevertheless, could not admit the presence of that disease, because when one lung is so deeply diseased tuberculously, as from some cause or other the right was here, the other lung, as far as I know, invariably suffers more or less with the same disease; now here the left lung, instead of being similarly diseased, was actually extra-healthy—hypertrophous. The age of the patient was somewhat discordant with the notion of active phthisis; there had been no night-sweats and no hæmoptysis; and, unless under the tractive influence of an enormous excavation, I have never known the heart even nearly so much displaced to the right, through the progress of tubercle in the right lung, as in this instance;—now we had no evidence before us of the existence of any such excavation.

Nor, fifthly, could we fairly admit that Sharman's right lung was simply the subject of chronic pneumonia, with reduction of bulk from contraction of the infiltrated exudation-matter; for though the limitation of the disease to one side, and the general character of the physical signs, were consonant enough with this view; on the other hand, the hollow class of signs were too perfectly developed, the quantity of rhonchi too abundant, and the displacement of the heart too great, for simple chronic consolidation of the parenchyma. I cannot attach much weight to the deficiency of the commemorative history of an acute pneumonic seizure; for, in the first place, the man's history was very imperfect; and the pneumonia might, by possibility, have followed a chronic course from the outset.

We are, then, sixthly, reduced, *per viam exclusionis*, to cirrhosis of the lung as the affection most probably existing. And there was not wanting direct support of this view. Sharman's age, his sex, his commemorative history of chronic bronchitis, his habitual decumbency for years on the affected side, his emaciation, the absence of hæmoptysis, the characters of the expectoration, the hollow class of physical signs, (referrible to dilatation of the bronchi, surrounded with solid, highly-reflecting material,) the position of the heart and the hypertrophy of the left lung:—all these facts and conditions militated in favour of that view of the nature of the case. Nor could a single argument be found against it, as far as we could see, except the excessive rarity of the disease presumed to be present. But rarity of a disease, though an element of diagnosis not to be despised where the sum of probabilities may be tolerably equally divided between any two diseases, of which one is common and the other rare, will not justify us in refusing to admit the existence of any disease where an imposing mass of evidence testifies in its favour. We, consequently (guarding ourselves, however, by a note of interrogation suffixed to the words), placed the diagnosis "cirrhosis of the lung" on the bed-ticket.

§ III. Now, it turned out the disease was what we supposed it to be. But it happens, I believe, more frequently than any of us like to allow, that a diagnosis, proved to be correct *post mortem*, may not have been, actually has not been, arrived at on data wholly correct, or on grounds thoroughly logical. A right conclusion is sometimes stumbled on by an incorrect interpretation of facts, telling in reality a different story. This, however, is a point in the general theory of diagnosis we have no time to enter upon now. I was reminded of it by reflecting on the part we have made the absence of hæmoptysis play in the diagnosis before us. We rejected some diseases because hæmoptysis had not occurred; and we believed the absence of that hæmorrhage argued strongly in favour of cirrhosis. Now, *possibly*, we overrated the force of this argument both negatively and positively. At all events, I think it right to remind you it has been affirmed (though I have never myself seen an exemplification of the fact), that hæmoptysis of even grave character may attend pure cirrhosis. Knowing, as we do, that tuberculization of a lung may coadvance, in rare instances, with the process of cirrhotic infiltration and dilatation of bronchial tubes (a), I confess I feel disposed to contest, in the present state of the question, the power of unaided cirrhosis to induce serious hæmoptysis.

§ IV. In estimating the prognosis in Sharman's case, there appeared of favourable circumstances:—the full hypertrophy of the left lung, the probably insidious and very slow course of the disease in the past, his previous neglect of himself, therapeutically, (making it probable that appropriate management might at once exercise a beneficial influence,) the absence of tubercle or cancer, and the freedom of the cellular tissue from dropsical infiltration. On the other hand, of sinister augury, might be adduced:—the profound and extensive character of the disease in the right lung, a disease (admitting the diagnosis to be correct) of as yet undetermined duration and influence, the copious wasting discharges, bronchial and intestinal, the age of the individual and his general debility. On the whole it seemed probable we should soon lose Sharman, either through asthenia, from wasting discharges and from imperfect hæmatosis, or through intercurrent inflammation of the substance or tubes of the sound lung.

§ V. The course of the disease while under observation, from January 19 till April 30, the day of his death, was by no means steadily down hill. On the contrary, the regained faculty (lost for years) of lying on both sides, the increase of flesh and appetite, the improved strength, the diminished cough and expectoration, all pointed at one time towards substantial amelioration—the obstinate and constantly-recurring diarrhœa being the only symptom of seriously evil significance.

§ VI. Death occurred eventually by pneumonic inflammation of the non-affected lung, ill defined in character both clinically and anatomically. A general change in the aspect of the patient, the raised temperature (the essential element of pyrexia), the rather fine moist rhonchus at the left posterior base, the peculiar fœtor of the breath, indicated (without exactly proving its nature) the occurrence of some new condition in the left lung. Its nature was, in truth, doubtful; we could not admit the existence of gangrene, as the expired air and sputa certainly wanted the special odour of that affection; nor did it appear consonant with experience to recognize the presence of pneumonia with a pulse-respiration ratio of 3 : 1 or 88 : 28. The post-mortem examination scarcely cleared up the difficulty; for though the evidences of congestion and reduced consistence were positive, the anatomical condition was neither that of ordinary red nor grey hepatization. Does inflammation, affecting the parenchyma of a hypertrophous lung, impress different characters on it from those commonly described?

§ VII. In treating Sharman's disease, we had to consider the local irritation in the chest, and the general asthenia. The former was easily mitigated by counter-irritation and soothing expectorant medicines, the latter controlled by cod-liver oil, and diet of a supporting character. The intercurrent diarrhœa shortly became the chief source of disquietude, and unfortunately yielded, at least yielded completely, to none of the remedies employed. Ordinary chalk mixture, sulphate of copper and opium, gallic acid, enemata of tannic acid and krameria, sulphate of zinc, repeated counter-irritation of the abdomen by mustard poultices,—all of them relieved temperarily, but lost their good effect after a few days' employment. One of these agents appeared of problematical efficacy, however,—I mean gallic acid. Administered in doses of 15 grains, four times daily, it was, perhaps, not taken largely enough to produce notable astringent effect: however, it is to be remembered, we constantly give gallic acid in very large doses in the Hospital, in the management of various hæmorrhages; and we do not find the bowels become confined under its use. The dark-green, or almost inky, staining of the sputa, occasionally produced by the use of gallic acid, was observed here; at the time of this discoloration, no blood was to be distinguished in the expectoration by the naked eye; nor, if my memory does not deceive me, could any discs be discovered microscopically. It is worth notice, that, taken with infusion of catechu, the oleum morrhuæ did not increase the purging.

On the whole, there seems reason to believe Sharman's life might have been preserved for some time by care, and the immediate control of any fresh symptom that might arise, had not the left lung become the subject of inflammation.

§ VIII. Among the notabilia of the case may be mentioned, in the first place, the cirrhosed state of the bronchial glands. They were obviously infiltrated with the same kind of material as the pulmonary parenchyma; and sufficiently enlarged to have obstructed either main bronchus, had chance caused their pressure to bear upon one or the other. It seems next

(a) *E. g.*, Case of Osmond, U. C. H. Males. Vol. IV. p. 341.

to certain, that except on this mechanical principle, such state of the bronchial glands would be harmless.

The arrangement of the omental process, which I have described in the notes, was sufficiently curious, and evidently formed the groundwork of intestinal obstruction *in posse*. Viewed in connexion with this perverted arrangement, the patient's diarrhœa may be looked upon as a boon—as the probable manner whereby he was saved from an attack of ileus. The state of the small intestine, coupled with that of the bowels during life, is worth passing notice. It is, in the first place, exceptional that diarrhœa should continue obstinately in a chronic chest-affection, without there being ulcerations in the small intestine. Now, Sharman had the diarrhœa, but he had not the ulcerations. Again, the connexion of chronic pulmonary disease, with diarrhœa and ulcerated intestine, is effected habitually through intermediate tuberculization of the bowel; insomuch that such persistent diarrhœa becomes a sign of phthisis. Now, the case before us shows clearly it is not a sign wherein implicit faith can be rested: the lungs of Sharman contained no particle of yellow tubercle or grey granulation.

The vocal fremitus was somewhat less marked at the right base than the left, on the man's admission; hence before any acute consolidating process had occurred in the latter position. Whence this perversion of the normal state of things? I presume that a hypertrophous lung vibrates more freely under the influence of the voice than a healthy one, simply in the ratio of its greater mass; hence the well-marked fremitus at the left base: while, on the other hand, the solid induration-matter at the right pleural base would tend to diminish the perceptibility of vibration on that side. The whispering pectoriloquous resonance heard at the right supra-spinal-fossa, below the right nipple and between the inferior edge of the right scapula and spine, depended on the reflexion and reinforcement by unison-resonance of the voice within the dilated tubes, surrounded as they were with an excessively dense material. Let us remember, as we pass, that the dilation of the tubes was great, tolerably equal, and most decidedly non-globular. Let us note, too, that in the morbid varieties of respiration-sound on this side the expiration was of lower pitch than the inspiration. In point of fact, we had here a condition of things falling, as far as I have observed, under the ordinary rule; but, as it has been affirmed, that heightened pitch of the expiration sound is one of the essential characters of morbid bronchial breathing and its derivatives, it may be worth while to draw your attention to one instance, at least, of the reverse. Remember, however, we do not contest the fact of the pitch of expiration ranging, in some specimens of bronchial breathing, above that of inspiration; far from this, we have ourselves in some cases found the relative pitch thus perverted.

The mal-position of the heart, as is the rule, exercised no influence of an appreciable kind on the sounds of the organ; both were unattended with murmur. Conceivably, this might depend on Sharman's heart having been rather carried bodily from left to right, than, as is more usual, twisted on its base, so that the apex bears more to the right than even the right auricle. But, even where twisting is shown after death to have manifestly occurred, murmur has not necessarily been observed during life. Let us not forget, however, that such twisting is a possible cause of systolic—nay, even, as we have in one instance found, of diastolic—murmur at the base. The transference of the heart to the right chest, doubtless prevented the contraction of that side being so great as the cirrhosed state of the lung, had it been uninterfered with, would necessarily have entailed.

Considering the position of the heart, it does not appear requisite to appeal to the doctrine of reinforcement by unison-resonance, in explanation of the remarkable loudness of the second sound, below the right clavicle.

There are some who teach the diagnosis of phthisis may be made through the emaciation it entails. Were there but the case of Sharman, to prove the fallacy of such teaching, it would suffice for the purpose. True, if in a chronic chest-affection, wherein the scales show persistently increasing loss of weight, we diagnose phthisis, the probabilities are we shall be right; not, however, in the remotest degree, because that principle of diagnosis is sound, but simply because phthisis is infinitely the most common of wasting pulmonary diseases. Imagine, too, for a moment, the attempt to make a diagnosis of the present class by the indications of the pulmometer or spirometer.

What quantum of breathing substance may have remained available in the right lung we have unfortunately no means of determining with precision. It must have been very small,—and for purposes of aeration of the blood, that organ must be looked on as almost inert. Doubtless, new vessels had formed in the exudation-matter; but these, we must suppose, communicated, on the principle established in other cases, with the bronchial, and not the pulmonary, arteries,—and hence were useless as aids to oxygenation.

The urine was habitually of the so-called anæmic class—of low specific gravity; pale; not strongly acid; faintly urinous in smell, and moderately copious. On one or two occasions, for a while, it assumed the pyrexial character; throughout it remained free from albumen.

Although Sharman was so extensively deprived of lung, his pulse-respiration ratio was not seriously perverted: it never fell lower than 3 : 1; and was sometimes found, at the par of health, 4 : 1—even above this on one occasion, 4 . 7 : 1. Note that in spite of the heart's displacement the pulse maintained regularity of rhythm throughout.

ORIGINAL COMMUNICATIONS.

PRACTICAL OBSERVATIONS ON THE PROPHYLACTIC AND CURATIVE TREATMENT OF CONTINUED FEVERS.

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Although the subject of Fever has received the attention of Medical writers in many ages of the world, from the time of Hippocrates to our own, yet there is, perhaps, no department of medicine which is less exhausted, or which offers greater opportunities for novelties both in theory and practice. For the word "fever" represents not so much a definite assemblage of symptoms, collected into a uniform and consistent whole, as an ever-varying series of phenomena, modified indefinitely by locality, season, climate, age, and constitution. In vain may we endeavour to trace in the descriptions of Hippocrates the prototypes of the fevers with which we are familiar in the present day, and the classic and accurate language of Sydenham exhibits to the view forms of fever, existing in London in the seventeenth century, which are very different from those which prevail in the nineteenth.

Yet there is no doubt, that in all ages of the world, and in all countries, the main features of fever have been and are the same; there is cold shivering, followed by heat, which is again succeeded by sweating; and yet, even if we exclude all specific diseases and inflammations of determinate seat, attended by febrile disturbance, how various are the forms which this strange and mysterious disease, characterized by cold, heat, and sweating, is accustomed to assume. Sometimes the paroxysm begins and terminates in a single day or in a few hours, and it recurs at intervals of one, three, or four days; or the cold stage is followed by a hot stage, which lasts three or six weeks, and the sweating stage is the indication of the departure of the disease and the harbinger of returning health; or the cold and the hot stage are daily succeeded by the perspiration, which leaves the patient weak and exhausted, to run through the same series of symptoms on the succeeding day. Or the disease appears to have run its course, and the patient is rejoicing in the prospect of speedy recovery, when, at some uncertain period, the whole train of symptoms reappears, and he is the more depressed in proportion to the previous brightness of his fallacious hopes. But among the Intermittent, the Continued, the Remittent, and the Relapsing Types of Fever, which I have just sketched, there are infinite varieties, both in relation to their severity, their symptomatology, their morbid anatomy, and their results.

It seems to be, therefore, not inappropriate to offer some practical remarks upon the chief forms of fever prevalent in the present day in this Metropolis, and upon the treatment which is most appropriate for each kind, and I shall draw my

conclusions from actual observation, and from the experience afforded me last winter by the care of many of the patients in the London Fever Hospital.

Although I intend my observations to be entirely practical, it is, nevertheless, necessary to make a few preliminary observations of a theoretical nature, by way of introduction; and first, it may not be irrelevant to offer a few remarks upon the *nature* and *causes* of fever, so far as they are understood.

Of the Nature of Fever, or its proximate cause, it may at once be admitted that we know but little, and that, in point of fact, we have improved very slightly, if at all, in this respect upon the knowledge of our ancestors. I do not know that the opinion of Sydenham in the following passage is very different from that entertained in the present day:— "Primoquidem, adverto inordinatam illam massæ sanguineæ commotionem, Febris hujus seu causam, seu comitem, a Naturâ concitari, velut heterogenea quædam materia in eâdem conclusa ac ipsi inimica secernatur, vel ut sanguis in novam aliquam diathesin immutetur." For although various authors have successively located the disease in different organs and tissues of the body, the opinion is now becoming general that it is really an affection of the blood, although, unfortunately, neither the powers of the microscope, nor the researches of the chemist, have yet detected the pathognomonic changes which fever produces in that fluid.

It would not be difficult to find objections to any, or all, of the theories which have been entertained of the *proximate cause* or *essence* of fever; but it is much more easy to find fault with the views of others than to establish correct views of our own. Three theories are considered of sufficient importance to demand special attention. The first considers fever to be an affection of the nervous system, involving primarily the sympathetic series; a second, places the seat of the disease in the gastro-intestinal mucous membrane; a third, points to a disordered condition of the blood as the real cause of the disease.

Without entering at length into the consideration of these theories, it may be stated generally that the view most consistent with the known facts, is that which considers fever to be a peculiar affection of the blood. The absence of the signs of organic lesions, except in the cases hereafter to be described; the increased action of the heart in most cases, and the acceleration of the pulse, and the subsidence of the latter after the critical evacuations; all point to a disturbance of the circulating fluid as an essential element, or *the* essential element, of the disease. The "commotion" described by Sydenham is supposed to be caused by the introduction of some morbid poison, and a process similar to fermentation to be set up. Hence the term *zymotic*, which has been applied to fevers, and other allied diseases; and although it is true that neither the ζυμη or ferment itself has ever been detected in a separate state, nor the products of the supposed fermentation have ever been isolated, yet the theory is not inconsistent with the course of the disease, or with the known phenomena of fermentation.

The theory which supposes the nervous centres to be the seat of fever, is not destitute of plausible arguments in its favour; the known connexion of nervous influence with the action of the heart and arteries, and with the different secretions, and the disturbance of the intellectual, sensory, and motor powers in fevers, all prove indisputably the close relation existing between the nervous system and the febrile diathesis; but the blood-theory of the disease is by no means inconsistent with the facts of nervous disturbance, for the nervous system is nourished by the blood, like all the other tissues, and if this fluid is in a morbid state, the innervation must materially suffer.

The theory of fever which is least tenable, is that which assumes the disease to consist in an inflammatory condition of the gastro-intestinal mucous membrane; for although, as will afterwards be shown, inflammation and ulceration do certainly occur in certain forms of fever, this pathological condition is by no means universal, and, in fact, exists only in a limited number of cases.

The opinions of Medical men in the present day tend towards the revival of the "humoral pathology;" and, not only does daily experience teach us that the scalpel of the anatomist fails too often to reveal the real essence of disease, but we are, moreover, led to believe that the visible changes in the solid tissues are to be regarded as consequences of a vitiated condition of the vital fluid. The opinion that cancer and tuberculosis are originally blood diseases is fast gaining ground; that cholera, scurvy, purpura, and albuminuria are blood affections can hardly be doubted. In the whole series of inflammatory diseases the blood undergoes an appreciable change in the nature and proportion of its constituents, causing morbid deposits in the various organs; and it is most consistent with experience to attribute the whole series of febrile diseases, including the exanthemata, to peculiar conditions of the constitution of the blood.

This view is by no means to be regarded as wholly hypothetical, and, therefore, of little importance to the practical study of Medicine, but is, in fact, pregnant with results of the highest importance in our treatment of disease; for, if we admit that diseases spring from poisons generated in the blood, or introduced from without, we shall be led to study the mutual relations of the human body to external or internal agencies, with a view to arrest the development of morbific processes in the system, instead of combating them when they have already seized upon some vital organ. How often do we find patients suffering from general *malaise* and evident illness, although no local injury is yet apparent, and no amount of sagacity can foresee the precise point which is about to be attacked. By a firm persuasion of the blood origin of diseases, and by a conscientious adoption of measures in accordance with that view, incalculable benefits will accrue to the Profession and to mankind. Legislators and generals will investigate the hidden sources of disease in the surrounding elements, in the food, the clothing, the moral condition, of their people; and, by destroying noxious emanations, by promoting cleanliness and cheerfulness, and by the due regulation of diet, much will be accomplished in promoting the physical and moral welfare of the nations of the earth. I do not advocate any such extravagant doctrine as the possibility of the universal abolition of disease, or of moral evil, from the world; but experience has proved that the sources of disease are more under human control than was formerly imagined, and that the health of the population may be indefinitely promoted by the adoption of sound measures of hygiene. Unfortunately, our Professional assistance is often demanded when human skill is of no avail; and the warning voice of disinterested patriotism, on the part of members of our Profession, is too often disregarded till remedial measures are too late.

The *treatment* of continued fever is a subject on which a great diversity of opinion still exists, although, perhaps, not so much as in former times; and it is very much to be regretted that all therapeutical means must be considered to be empirical; for, even if we admit, what I believe to be the most probable theory of the proximate cause of continued fever, the poisoning of the blood in this disease, we have yet to discover a method of treatment which shall eliminate the poisonous matter, and restore the patient to health. It does, indeed, seem probable that this elimination takes place; but we cannot assert that any means in our power can infallibly produce this desirable effect. I think it may be stated generally, that continued fevers run a certain course, extending over a certain number of days, although we have not yet been able to determine with accuracy the precise period to which any given fever will extend; neither has it been ascertained whether, by means of treatment, a fever which would run on to six weeks, has been curtailed to the duration of seven or fourteen days, although it is highly probable that such is the case. I must confess that I do not believe in the possibility of *cutting short* a fever by any one remedy, although, as I have just observed, I believe it likely that the duration of fevers may be diminished by the application of combined agencies.

But in order to direct with judgment the employment of remedial measures in fevers, I believe it to be essential to consider their different species.

The division of continued fevers by Cullen will be readily called to mind; the *synocha* or inflammatory fever, the *typhus* or low fever, and the *synochus* or mixed fever. But this division is obsolete, for the synocha or inflammatory fever seems to have disappeared from among us. The division into *typhus* and *typhoid* is far more in accordance with modern observation, and I may at once express my conviction that this division is founded upon Nature, as I have seen many hundred instances of the disease in the London Fever Hospital; and in all these cases the diagnostic marks of the two diseases were very plainly indicated. The scepticism which still prevails in some minds upon this subject is probably due to

imperfect observation, or limited experience, or to the fact that in some of the milder cases of fever, the peculiar rash is not developed. In my own experience, although seeing in the course of each year several instances of fever, I was not much struck with the divisions of fever into typhus and typhoid, but when from local circumstances I was thrown in contact with a great number of cases, I was enabled to compare one case with another, and thus to establish in my own mind the accuracy of the diagnosis. It must be recollected, that Nature always exhibits connecting links between diseases, as she does between the tribes of animals and plants; and just as it happens that it is difficult to distinguish certain forms of cutaneous affections without an extensive range of subjects for study, so is it also difficult to seize readily the distinguishing marks of *typhus* and *typhoid* fever, without the opportunity of observing a great number of cases, following them through their different phases, and watching their peculiar complications.

While making these general remarks, I am by no means ignorant of the fact that cases have been occasionally adduced in which the marks of typhus and typhoid fever have been described as occurring in the same patient, and I do not affirm that the question is at present finally settled; but if any serious attempt should be made to controvert the existence of the distinctions, it must be made with the same patience and zeal as have been exhibited by Dr. Jenner, and must be made in an equally extensive sphere of observation as that afforded by a large Fever Hospital.

Without entering at length into the pathology of these two divisions of fever, which have been elaborately described in Dr. Jenner's well-known monograph, it will be necessary to give a brief sketch of the diagnostic marks of each, as bearing upon their treatment.

The *typhus* fever is characterized by its very contagious nature, by the greater prevalence of cerebral symptoms, by the presence of a dark mulberry rash, persistent, and not fading on pressure, and by the absence of disease of Peyer's glands.

The *typhoid* fever is characterized by its comparatively non-contagious nature; by the less development of cerebral symptoms, by the presence of a light, rose-coloured rash, chiefly appearing on the trunk, fugacious, disappearing temporarily on pressure; by the existence of disease of Peyer's glands; by the existence, more or less severe, of diarrhœa; by a blown condition of the abdomen; by gurgling in the right iliac fossa.

Although certain forms of these diseases approximate to one another in a greater or less degree, yet it is very easy to distinguish the well-marked cases of each.

A patient with well-marked Typhus fever has an appearance of great depression; his skin, especially upon the trunk and limbs, is covered with a multitude of dark purple, patchy spots, very much resembling measles, and in certain cases liable to be mistaken for that disease; his tongue is brown, dry, and furred; his pulse, in the advanced state of the case, is small, rapid, and irregular.

A patient with Typhoid fever does not in general exhibit such well-marked depression; and, indeed, his appearance is so deceptive, that it might sometimes be imagined that he was not suffering from serious disease. A few rose-coloured spots are scattered over his abdomen and chest; these fade away, and are succeeded by others more or less numerous, but never resembling the patchy, measly rash which is seen in typhus; the tongue is usually dry, glazed, and of a mahogany colour; the pulse sometimes continues for a long time rapid and firm; diarrhœa is usually a marked symptom, and the motions are copious, watery, and in extreme cases bloody; the belly has a peculiar blown appearance, and there is gurgling in the right iliac fossa, which is, no doubt, due to fluid in the cœcum.

I repeat, that these appearances and symptoms in Typhus and Typhoid fever are relative and not absolute marks of distinction; and it is quite possible that all the symptoms may not be observable in every case. I may observe, further, that in typhus there is marked tendency to cerebral disturbance: in typhoid the abdominal symptoms preponderate; typhus fever is propagated by contagion; typhoid is caused by local and endemic influences.

The *treatment* of FEVER may be divided into two heads, viz., that which is applicable to both kinds, and that which is suitable especially for each. The general treatment will first be noticed.

One of the remedies which has been most loudly extolled in the treatment of fever is *blood-letting*, and it is deeply interesting to compare the former doctrines and practices in relation to this powerful agent with those entertained in the present day.

Dr. Southwood Smith, writing in 1830, and viewing fever as a form of inflammation, strongly advocates the necessity of blood-letting. "The Physician," says he, page 381 of his book on Fever, "in the first stage of fever, armed with his lancet, is to his patient what the fireman with his engine, before the flames have had time to kindle, is to a building that has taken fire. At this early stage, the former can check inflammation with almost as much ease and certainty as the latter can prevent the flames from bursting out. On the contrary, the Physician who is called to treat inflammation in the later stage of fever is in the position of a man who arrives with the apparatus for saving the house when its stories have been already consumed, and its roof has fallen in. Bleeding in fever cannot be performed too early. The very first moment of excitement, could that be discovered, is precisely the moment when the employment of this powerful remedy would produce the greatest effect. The earlier the bleeding, the greater will be the impression made upon the disease, and the less upon the patient; or, the more effectually will the inflammatory action be stopped by the loss of the smallest quantity of blood."

Now in quoting this passage, which inculcates doctrines so much at variance with those of the present day, and which are now entirely opposed to the practice of this distinguished Physician himself, I accuse Dr. Southwood Smith of no inconsistency. It is not he who has changed his opinions, but it is Nature who has altered the type of disease; and this remark applies not only to the pathology of fever, but to that of many other diseases.

"Nihil quicquam opinor," writes the sagacious Sydenham, "animum universæ qua patet Medicinæ pomœria perlustrantem, tanta admiratione percellet, quam discolor illa et sui plane dissimilis morborum epidemicorum facies: non tam qua varias ejusdem anni tempestates, quam qua discrepantes diversorum ab invicem annorum constitutiones referunt, ab iisque dependent. Quæ tamen aperta prædictorum morborum diversitas tum propriis ac sibi peculiaribus symptomatis, tum etiam medendi ratione quam hi ab illis disparem prorsus sibi vendicant, satis illucescit."

About the year 1830, when Dr. Southwood Smith's book on Fever was written, a change was coming over the type of disease; and instead of affections requiring vigorous and timely depletion, came maladies accompanied by rapid sinking of the vital powers. They who were in practice about that period, will recollect cases of the Synocha of Cullen; the hot, burning head, the hot skin, the throbbing heart, the quick and full pulse; and will remember that a copious abstraction of blood would relieve the symptoms, and in some cases even apparently cut short the disease. But he who seeks among the numerous cases admitted into the Fever Hospital or elsewhere, for a fever so characterized, or likely to be so relieved, will seek in vain, for a wholly different disease has taken its place. Besides fevers, diseases new to mankind, or at any rate imperfectly and obscurely described by former authors, have swept over the earth during the present century; in 1832 came the cholera into this country, a disease not unlike fever in its pathology, inasmuch as it seems to consist of a decomposition or some other obscure condition of the blood, and is moreover, not unlike the worst forms of typhus fever in its rapid fatality. In 1833, the influenza, an aggravated form of catarrh, and accompanied and followed by a marked prostration of the powers of life, seized upon thousands of the population, and although not so rapidly fatal as cholera or typhus, yet hurried away from the scene of life the very young, the old, and the debilitated; and attacking persons in the flower of age, often laid the foundation of irreparable mischief. Still later, the plague of boils has visited our land, accompanied by depression of vital energy quite disproportionate to the local disease. Even the forms of inflammation in which blood-letting was, and in certain instances, still is, the acknowledged remedy, have changed their type and require a very cautious, instead of a bold and vigorous, application of that kind of depletion. The cases of pneumonia now requiring the loss of blood are

comparatively few, and in the treatment of certain forms of this inflammation, even carbonate of ammonia, generally considered as a stimulant, has been employed with no inconsiderable success.

(To be concluded next week.)

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

THREE CASES OF FATAL INTESTINAL OBSTRUCTION.

For the particulars of the three following cases we are indebted to the notes preserved by Mr. Walter Chippendale, one of Dr. Burrow's Clinical Clerks at the time they occurred. They are greatly abbreviated from the detailed reports furnished to us:—

Case 1.—DEATH AFTER EIGHT DAYS' SYMPTOMS OF OBSTRUCTED BOWEL—AUTOPSY.

(Case under the care of Dr. BURROWS.)

George Stock, aged 22, a hairdresser, accustomed, with slight exceptions, to good health, was admitted into Ratcliffe ward on June 22. He stated that for six years he had been liable to attacks, of which constipation of the bowels, severe colic, and pain and sickness were the chief symptoms, and which usually passed off after a short time. He knew of no cause for them, and it did not appear that he ever had peritonitis. He was accustomed to take much opening medicine, the bowels being habitually torpid. During the last year he had been free from the attacks referred to until the present one, which had begun five days ago in the usual way, but of which the symptoms, instead of passing off, were becoming more and more aggravated. He had suffered during that time from constant nausea and very frequent vomiting of green bilious fluid; the bowels had been obstinately confined, and there had been severe griping pain about the abdomen. The man's countenance, at the time of admission, was expressive of anxiety and distress; but, in the intervals of the paroxysms of pain, his breathing was calm, skin cool and moist, and pulse of moderate volume, soft and of average frequency. The sickness prevented him from retaining anything on the stomach, he was very thirsty, but had no appetite. Tongue thinly furred brown. The abdomen was hard and tense, especially along the course of the transverse colon, its surface was uneven, being distended at the epigastrium, and in each of the anterior lumbar regions, but retracted about the umbilicus, where it was also intolerant of pressure and comparatively dull on percussion. At intervals of half-an-hour, or often less, paroxysms of severe pain would come on. These generally commenced by retching and hiccough, and ended in vomiting. The pain which was described as of a twisting character, was referred to the epigastrium and umbilicus, and was increased by pressure or by deep inspiration.

The account given of the present illness, was that for a fortnight back the bowels had been unusually constipated, and had required the frequent use of aperient medicine. The last evacuation had been five days ago. Three days back the paroxysms of pain commenced, and they had since recurred with increasing frequency and severity.

Ordered Hydr. chlorid. gr. i., opii. gr. i., statim. Enema commune.

June 23.—The enema produced a copious dark and offensive motion, and gave some relief to his sufferings. He continues to vomit after attempting to take food, and the paroxysms of pain, although much less severe, recur with the same frequency. Skin hot and dry. Pulse 110, of moderate volume. ℞ Hydr. chl. gr. viij., opii. gr. i., statim. Haust. sennæ co. cras mane.

24.—The pills and draught were at once rejected by vomiting, the bowels have not acted. He has had a sleepless night, and the pain has become almost persistent. Countenance flushed and dusky, eyes sunken, expression anxious and distressed. He has urgent thirst, but vomiting follows every attempt to swallow either food or fluids. He lies on his back, with the knees drawn up. The respiration is hurried, shallow, and entirely thoracic. Pulse 120, full and rather hard; tongue covered with a thick brown fur and tending to dry. The abdomen is retracted, hard and extremely tender about the right side of the umbilicus, where the resonance on percussion is much impaired. In the epigastrium and to the left of the umbilicus, there is some distension, and a clear note on percussion. The convolutions of the intestines and their intervening depressions are easily seen through the abdominal walls. There is almost constant rumbling of air in the bowels. To take 15 drops of tincture of opium every three hours.

25.—Has had no relief from pain, and is now fast sinking. The vomiting is very frequent, the fluid ejected being frothy and light coloured, but of a stercoraceous odour. The pulse is thready and the extremities cold. He was delirious in the night, and now lies muttering and moaning. Much hiccough.

Death took place about midnight, four days after his admission, and nine from the commencement of symptoms of strangulation.

Autopsy.—The viscera of the *thorax* were all healthy, but its capacity was diminished, the diaphragm being pushed up by the distended intestines. The *abdominal cavity* did not contain any amount of fluid, nor was there any deposit of lymph upon the peritoneal layers. The larger portion of the small intestines was seen to be distended, and of a deep red colour from congestion, while the large intestines were pale, contracted, and collapsed. On tracing the course of the bowel downwards, the lower portion of the ileum was found to be fixed by a strong band of old false membrane to the peritonæum over the inner margin of the right psoas muscle. Where this band was connected with the intestine, the latter was twisted over on itself, and thus so much constricted as to be almost impervious. Above the point of stricture, the gut was distended with gas, and with a yellow fluid resembling that vomited, but below it was contracted and empty. The mucous membrane of the bowel, for some distance above the stricture, was much congested, and presented here and there discoloured ashen-grey spots, as if from commencing gangrene. The stricture was at a distance of six feet above the ileo-cœcal valve.

No diseased appearances were noticed in any of the abdominal organs, excepting the liver, which had some adhesions to the pylorus, and also presented, beneath the serous investment of its right lobe, several small pea-like deposits of yellow material, which under the microscope consisted of cholesterine and oil globules.

With regard to the history which, in this case, the man gave of his having had many similar attacks during the six preceding years, attention must be paid to the peculiar cause of the constriction. The band of false membrane, which was an inch and a half long, had every appearance of having existed for years. It was attached by one extremity to the gut, and by the other to the abdominal parietes. Thus, it was only when the bowel was twisted round on itself, that any pressure upon its tube would be exerted, and this the untwisting back again would at any time suffice to relieve. It was then very easy to conceive as possible, and even likely, that this twisting might, from irregular peristaltic action, have been produced on many previous occasions, and after a time spontaneously rectified. It is needless to point out that the cause was one peculiarly fitted for relief for the operation of gastrotomy.

Case 2.—DEATH AFTER FIFTEEN DAYS' SYMPTOMS OF INTESTINAL OBSTRUCTION—AUTOPSY.

(Case under the care of Dr. BURROWS.)

George Camp, aged 40, an emaciated man, was admitted on the evening of January 31, in an urgent state, from symptoms of obstructed bowel, which had been present ten days. His expression was anxious and sunken; skin cool and dry; pulse 96, of moderate volume, somewhat jerking; voice husky; tongue covered, on dorsum, with thick, moist, yellow fur, but very red and dry at the apex. He complained of extreme thirst, but rejected everything he swallowed, even water. The abdomen was distended, its greatest prominence being in the hypogastrium and left lateral region. The right lateral region was somewhat flattened. The surface of the abdomen was irregular and "lumpy," the coils of bowel being distinctly perceptible through its walls, which felt doughy, and had lost much of their elasticity. Pressure did not cause much pain, except at the epigastrium, and to the right of the umbilicus. There was great dulness on percussion in the right lateral region, all other parts being resonant, and espe-

cially the epigastrium. Occasional paroxysms of severe pain would occur, during which the intestines seemed to him "to roll about." Frequent borborygmi were heard.

History.—By trade a turner, and of temperate habits. Enjoyed good health until about twelve months ago, when he fell a height of eight feet, since which accident he has been liable to diarrhœa. Was in usual health until ten days ago, when he was suddenly attacked with chilliness, sense of constriction in the abdomen, and pain about the umbilicus. On the same day hiccough, violent retching and vomiting, commenced, and they had ever since continued. He had a constant desire to go to stool, but his efforts were ineffectual, and increased his sufferings. From the first day of his illness he had been under Medical treatment. Powerful purgatives, sinapisms, enemata of turpentine and castor-oil had been given, and also a single dose of quicksilver. The long tube had also been passed up the anus for a distance, it was believed, of about a foot. No benefit whatever had been obtained from these measures, but rather the sufferings much aggravated. The enemata had generally returned just as thrown up, but on one occasion they had brought away two small scybalæ. For three days past both the enemata and medicines had been discontinued. The matters vomited were reported to have been of stercoraceous character.

Soon after admission he vomited several times, but the ejected matters were not stercoraceous. An attempt was made to introduce O'Bryen's tube, but it could not be made to pass more than three or four inches. Enemata of beef-tea with laudanum were ordered, together with the exhibition of mercury both by inunction and by the mouth (in doses of one grain of calomel every four hours).

February 1.—The vomiting recurred last evening, and has been constant ever since. The matters resemble a relaxed bilious motion, and have a fæcal odour. He has thrown up all the medicine administered. There is no marked tenderness in any part of the abdomen, but he complains when the hand is drawn firmly across the epigastrium. Excepting that he is more feeble, the other symptoms are much as yesterday.

2.—There has been no vomiting since seven yesterday evening, and he dozed a good deal in the night. He is, however, much more sunken; the voice being more feeble, and the skin cold and clammy. Pulse 96; jerking. This morning a little blood, unmixed with air-bubbles, has been expectorated. He still has intense thirst, but is afraid to drink lest it should bring on vomiting. Injections of beef-tea and laudanum have been continued, and have sometimes been retained, but more generally returned at once.

3.—Vomiting recurred for a short time yesterday afternoon, but he has passed a tolerably comfortable night. The pulse is, however, extremely feeble, though not more than 90, and the skin is cold. Has had no return of the spasmodic pain, but complains of constant uneasiness in the abdomen. Death took place at 10 p.m. on the 4th.

Autopsy.—Corpse extremely emaciated; abdomen greatly distended, the distension being most marked on the left side. All the thoracic organs healthy. On opening the peritoneal sac, no fluid was found; nor any traces of recently effused lymph. The omentum was stretched over the viscera, was much congested, and adhered on the right side to the internal abdominal ring, and on the left to the walls of the abdomen. The position of the viscera was found much altered. The stomach was dragged down towards the left iliac region, and was firmly adherent, by its pyloric end, to the abdominal parietes, from which point it made an abrupt curve upwards. The transverse colon was also dragged downwards to the left. The small intestines were of a dark colour, and enormously distended. Commencing from the stomach, it was not found practicable to trace the bowel further than the commencement of the ilium, where the convolutions were firmly matted together by old adhesions. A band of false membrane, about six inches in length, and half-an-inch in breadth, very tough, and of smooth and glistening aspect, was found passing downwards, obliquely, from the mesentery of the left side to the right iliac fossa; it was firmly attached, and broader at each extremity than in the middle. By this band the intestine was compressed against the spine, and rendered quite impervious. Above the constricted part, the bowel was distended with gas and liquid bilious fæces, while below it was empty and contracted. The point of constriction was found to nearly correspond with the right of the umbilicus, the part in which most tenderness had been felt during life. The mucous membrane was seen, on laying open the canal, to be tinged and very deeply congested immediately above the constricted tract. The rectum presented a deviation from its usual course, describing an additional curve upon itself beneath the sigmoid flexure, and being there bound down by firm adhesions to the adjacent parts. The abdominal viscera themselves were healthy.

Case 3.—EPILEPSY—SYMPTOMS OF OBSTRUCTED BOWEL SUPERVENING DURING RECOVERY FROM THE FIT—DEATH—AUTOPSY.

(Under the care of Dr. BURROWS.)

William Harris, aged 33, was admitted on Feb. 15, in a well-marked paroxysm of epilepsy. Cupping was practised, and an enema of turpentine administered, and the stage of insensibility, without convulsions, soon supervened. It was afterwards ascertained that this was the third fit he had had, the first having been eighteen, and the second ten, years ago.

During the three days following admission he slowly recovered his consciousness, and became able to recognize those about him, and to answer questions. Purgatives and enemata had been employed on the first day, and free action of the bowels procured.

During the night of the 18th he began to suffer much from hiccough, and on the following morning he complained of pain in the abdomen, which was hard and full. There was general good resonance, and even firm pressure was well borne. The bowels had now not acted since the 16th, and, although he had constant desire to go to stool, his efforts to procure an evacuation were ineffectual. The countenance was pale and anxious; tongue furred and brown; pulse 90, small. A dose of calomel and jalap, to be followed by castor oil, was ordered, and also an enema.

Feb. 20.—The enema returned unchanged, and no action of the bowels has been procured. The hiccough is almost incessant. About every ten minutes there are short spasms or paroxysms of dyspnœa, accompanied by pain just above the epigastrium, and during which the countenance indicates the greatest distress. These spasms are brought on by the attempt to swallow or to cough, and are generally relieved by friction over the part. He is quite free from pain, but has had no sleep on account of hiccough. Has been almost constantly sick, rejecting everything swallowed, even water. Abdomen uniformly distended and tympanitic, and without undue prominence in any part. Umbilical depression almost obliterated.

A draught containing chloric ether and laudanum was ordered, and was effectual in much relieving the hiccough and the spasms. The retching, however, continued to be almost incessant, and the matters vomitted at length became stercoraceous. The breath also acquired a fæcal odour.

Up to the time of death, which occurred on the 21st, he continued as he stated to be quite free from pain, and the abdomen, although greatly distended, bore pressure well in every part.

Autopsy.—On laying open the peritoneal cavity the liver and stomach were found pushed upwards by the distended intestines. The bladder was full and reached high up. The small intestines were of the usual size of the larger ones, and the latter were contracted and collapsed. On tracing the bowel from below upwards, the lower part of the jejunum was found girt by a band of lymph which compressed it against the vertebra, and almost rendered its canal impervious. The intestine at this part was also turned and twisted on itself. The band of membrane was tough and glistening, about five inches in length, and adhering very firmly by both extremities to the mesentery. The appearances presented by the bowel when slit up, suggested that the stricture must have been of old date, all the coats being thickened, and the canal scarcely admitting a little finger. The peritoneal coat of the intestines generally was darkly congested, but there were no recent adhesions. The bladder was adherent to the rectum, and in the recto-vesical pouch was a collection of half-suppurating lymph.

THE LONDON HOSPITAL.

ENTRANCE OF AIR INTO A VEIN DURING AN OPERATION.—RECOVERY.

(Case under the care of Mr. WARD.)

The following case occurred a few months ago, and is of interest, as one in which it might be deemed all but certain

that a considerable stream of air entered a large vein, and yet recovery ensued.

Mary Ann Boffee, aged 10, a healthy girl, was admitted under Mr. Ward's care, on account of congenital wry neck. The face looked towards the left shoulder, and the head was drawn down towards the right: the right sterno-cleido muscle being rigidly contracted. It was determined to divide the tendon of origin of the affected muscle, the deformity being plainly due to its organic shortening. The operation was performed in the usual way, a narrow bladed knife being passed behind the tendon and made to cut its way forward. Both the sternal and the clavicular attachments were divided, and on the section being completed a very profuse gush of venous blood took place. At the same time, a loud hissing or sharply-blowing sound was heard. The patient, who was in the sitting posture, and not under chloroform, at once fell back insensible, and, with the exception of lividity of the lips, became deadly pale. It was questionable whether or not the pulse could be felt, but if not quite extinguished, it was all but so. The event occurred just as the knife was being withdrawn, and when consequently the wound was held in some degree open. The withdrawal of the knife was at once completed and the finger placed upon the wound. The child having been laid on her back, artificial respiration was immediately commenced. The state of insensibility did not last more than a minute or two. The pulse in a short time returned and the respiration began to be performed voluntarily. Within a few minutes the child had quite recovered. No subsequent ill symptoms whatever occurred.

Mr. Ward stated, in respect to this case, that from the peculiarity of the sound produced, and suddenness with which the alarming symptoms followed, he could not feel a doubt as to the nature of the accident. For a short time the child appeared dead, and had not prompt measures for her restoration been taken, it is not improbable that a fatal result would have ensued. The next case to be related, is one in which it was believed that the same accident happened, though the evidence was less positive.

THE METROPOLITAN FREE HOSPITAL.

SUSPECTED ENTRANCE OF AIR INTO A VEIN DURING AN OPERATION—RECOVERY.

(Case under the care of Mr. HUTCHINSON.)

Mary Plainstow, aged 56, a thin, cachectic woman, was admitted on account of a large ulcerated cancer of the right breast. There was also a glandular lump in the axilla, about the size of a walnut. The operation for the removal of both these tumours was conducted under the influence of chloroform. The breast itself was first excised, and, from the large size of the wound necessarily made, some loss of blood was incurred. The gland was found to have more deep adhesions than had been expected. Its removal was effected partly with the finger and partly with the knife, the arm meanwhile being held straight out from the chest. Just as its deep attachments in the apex of the axilla had been divided, a whizzing, bubbling, very peculiar, noise was heard, which suggested to those present the idea of air entering a vein. At the same time there was considerable venous bleeding, but not, as it seemed, from any one vessel in particular. Mr. Childs, who was assisting, instantly placed his finger over the spot whence the sound proceeded, and the arm was lowered to the side, upon which the sound ceased. The patient was at the time lying quite flat on her back, and was so pale from the combined influence of chloroform and loss of blood, that no indications could be obtained from her countenance. The pulse was as feeble as it well could be, but it did not cease; and respiration, although irregular, continued to be performed. After waiting a few minutes, the arm was again lifted from the side, and the finger removed, and again the peculiar whizzing was heard. The finger having been instantly replaced, a further delay took place, but no symptoms supervening, after a short time, all pressure was removed, and ligatures were placed on such vessels as required them. It did not appear that any large vein had been wounded, as there was no material bleeding, except from the small arteries. With the employment of brandy, etc., the woman rallied well after the operation; and excepting that throughout the day she continued to complain of painful shortness of breath, and sense of constriction about the chest, no symptoms which could be referred to the supposed accident developed themselves. She made a good recovery.

Although but little doubt was felt at the time by those present as to the nature of the accident which had occurred, yet it must be admitted that the proof is not conclusive. The circumstance that the patient was in the recumbent posture, and already in a state of insensibility, and almost of collapse, probably prevented the usual train of symptoms from being apparent. The but small loss of blood which occurred is no reason for believing that a vein sufficiently large to have admitted air had not been opened, since, in several of almost instantaneously fatal cases on record, no gush of blood was observed.

The entrance of air into veins is a matter of so much interest to the practical Surgeon, that we may, perhaps, profitably, in connexion with the cases just cited, bring before our readers the following notes concerning it:—

1. *Symptoms.*—A whizzing, gurgling sort of noise should always be regarded as sufficient to excite the utmost alarm, and on hearing it, the operator should not allow a moment to escape.

2. *Treatment.*—The finger should be instantly placed upon the wound. The patient should be laid in the recumbent posture, and, if syncope have occurred, artificial respiration should be commenced. If apparent death have ensued, endeavours at resuscitation should, for reasons about to be given, be long persevered in.

3. *The entrance even of considerable quantities of air into a vein is not nearly so fatal an accident as generally supposed.*—The writer once introduced a small injecting tube into the jugular vein of a horse, and blew as forcibly as he could for some minutes. The animal appeared uneasy, but nothing more. A large tin tube, with bore as great as the thickness of a little finger, was next procured, and half-an-hour or more having elapsed, and the horse seeming quite well, the wound was reopened, and a second attempt made. A very large quantity of air having been blown in, the horse at length fell. His death was slow, and seemingly very painful, occupying at least twenty minutes. After death the right side of the heart was found literally distended into a bladder of air. The result of this experiment quite accords with those obtained by many other observers. Dr. Blundell (a) injected 5 drachms of air into the femoral vein of a small dog; no symptom of immediate danger ensued, and in three days the animal was as well as ever. So common, indeed, has it been for recovery to follow the symptoms of entrance of air into a vein, that M. Ph. Boyer actually goes the length of denying that any proved instance of its causing death in the human subject is on record. M. Vidal also has insinuated that the accident is one invented by Surgeons to account for the sudden death of their patients. Whilst it cannot be needful to demonstrate the absurdity of these opinions, the circumstance of their having been held by such Surgeons is instructive as pointing to the rarity of the occurrence.

4. *Air may be easily absorbed from the interior of the large vessels.*—This follows necessarily upon what has just been advanced. If death does not occur quickly the patient will probably recover. No endeavours should therefore be made to remove the air at the time, nor should any fear of its "decomposing the blood" be entertained. All the Surgeon has to do, is by artificial respiration, galvanism, etc. to keep his patient alive for a certain time.

5. *Proportion of deaths in recorded cases.*—In an able review of Dr. Wattmann's book on this subject, published in the *Medical Review* for July, 1847, a tabular report of all recorded cases known to the writer is given. The list comprises 54 cases in which the accident occurred to the human subject, and of these 29 ended in death and 25 in recovery. While in several of these the evidence is very incomplete, in a majority there can remain no reasonable doubt as to the reality of the occurrence.

6. *Length of time elapsing before death.*—In most of the fatal cases given in the table referred to, death occurred, if not instantly, within a few minutes. In one, however, it followed fifteen minutes after the conclusion of the operation; in a second, "some hours" afterwards; in a third, suddenly, three hours afterwards (no autopsy); in a fourth, on the seventh day, from bronchitis; and, in a fifth, on the twenty-eighth day, the immediate cause being pneumonia. In the last no autopsy was made, and, as the patient was a young infant, it is very doubtful whether the inflammation of the lungs had any connexion with the accident under consideration.

(a) Medico-Chirurgical Transactions, Vol. IX. p. 65.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 92.—Long-Continued Secretion of Milk.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In your Journal of January 26, under the head of "the London Practice of Medicine and Surgery," two cases of "long-continued secretion of milk not connected with pregnancy" are mentioned as having been under the charge of Mr. John Dix, formerly House-Surgeon of the Derby Infirmary, but nothing was said as to the treatment to which they were subjected. Under my charge, at this moment, is a lady who was confined two years ago last month. The child was born with cyanosis, and lived three months, but could never be induced to take the breast. Contrary to my advice, the milk in the breast of the mother was retained by a borrowed child, much stronger, and somewhat older than her own. This practice, of course, ceased upon the death of her own baby, but not so the secretion of milk; at the present time, this lady has as much milk as she had at the time of her child's death. The slightest pressure on the breast is sufficient to make the milk fly out to the distance of a yard. I have painted the mammæ with iodine, given her iodide of potassium internally, acids, astringents, purgatives, etc., etc., all to no purpose. Of course the health suffers, though not to the extent any one would imagine. The periodical discharge occurs irregularly.

Be so good as to publish this among your "Notes and Queries," as I hope by your so doing, some of your correspondents may suggest to me some remedy, or course of treatment, by which this unnatural state of things might be removed. I am, etc. R.

Bolton.

No. 93.—Removal of Foreign Bodies from the Throat.

Sir,—Will not manipulation suffice in most instances for the removal of a foreign body from the pharynx or summit of the larynx? I have seized and extracted a crooked pin, lodged at the back of the larynx, with the fore and middle fingers.

Maryport, Feb. 11, 1856. Frederick Curtis.

ANSWERS.

To Query 82.—Eau Sedative.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In answer to your correspondent "T. E. A.," who, under the head of "Notes and Queries," No. 82, in your number of February 2, wishes to know the composition of Eau Sédative, I beg to inform him that he will find the formula, or rather formulæ, (for there are three of different strengths,) for making it in F. S. Raspail's "Manuel de la Santé," whose preparation it is. The directions for making it, its properties, uses, etc., occupy ten pages of his "Manuel Annuaire."

I first looked for it in the "Formulaire Magistral," par D. Bouchardat—the French Pharmacopœia, I believe, written in their own language; then in the "Formulaire des Praticiens," par F. Foy:—useful little works, which I found it necessary to study and consult when a student in Paris; but no mention is made of l'Eau Sédative therein. I then procured Raspail's "Manuel de la Santé," where I found it at page 105. It is for external application.

Formules.—1re Formule, ou Eau Sédative Ordinaire:—

Ammoniaque liquide, à 22° B. 60 grammes.
Alcool camphré (142) 10 grammes.
Sel de cuisne (autrement dit: sel gris, sel marin,) 30 grammes.
Eau ordinare, 1 litre.

2e. Formule, ou Eau Sédative moyenne—contains 80 grammes of Ammoniaque liquide.

3e. Formule, ou Eau Sédative très-forte—contains 100 grammes of liquid ammonia.

The proportions of the other ingredients are the same in all three formulæ. I am, etc. T. R. J.

To Query 82.—Slippery Elm-Tree Bark.

Sir,—In the *Medical Times and Gazette* of February 2, I see a letter from a correspondent, in which he asks questions in reference to the use of the slippery elm-tree bark in America, for what purposes it is used, and also the scientific name. In reply, I beg to inform him, that it is used as a febrifuge; that its botanical name is "Ulmus fulva;" that it is of the order "Ulmaceæ." I am, etc. Wm. A. Doherty.

Monday morning, Oxford-street.

To No. 82.—Eau Sedative de Raspail.

℞ Chloruret. Sodii (common salt.) ʒi
Liq. ammon. fort . . . ʒiij.
Sp. Camphor. concent. . . ʒiiss.
Aquæ puræ . . . ad. ℔ij.

Dissolve the salt in the water, mix in a separate bottle the ammonia and the spirits of camphor, shake them well together, and add this mixture to the salted water; keep it in a well-corked bottle.

To Query 91.—Temperature after Death from Acute Rheumatism.

Sir,—A correspondent ("J. W. K.") in your last number asks if I can inform him whether in acute rheumatism, a continuance of animal heat after death has been often observed. I can only say that in three cases in which Dr. John Davy ("Researches, Physiological and Anatomical," vol. i. pp. 239 and 232) has examined the temperature of the body of soldiers who had had acute rheumatism, he has found a very high degree of animal heat. In one of the cases, the extraordinary temperature of 113° was found under the left ventricle of the heart three hours and a half after death, the air of the room being at 86°. In a second case, the thermometer rose to 88° under the liver, fourteen hours after death, the air being at 69°. In a third case, it rose to 94° under the liver, the air being at 68°.

From these facts, and from the one observed by "J. W. K.," it seems that at the time of death the temperature is frequently above the normal standard in cases of acute rheumatism, as in cases of yellow fever, cholera, and typhoid fever.

Feb. 12, 1856. I am, etc. B. S.

Medical Times & Gazette.

SATURDAY, FEBRUARY 16.

THE LATE MURDER IN BEDFORD-ROW.

The murder of Mr. Waugh is a dreadful catastrophe, calling to mind the outrages which were formerly perpetrated in a very early period of our own history, and which still prevail among the inhabitants of savage nations. A gentleman of mature years, of great and undoubted respectability, is suddenly hurried into eternity, in open day, in a frequented thoroughfare of London, by an assassin who turns out to be a relative of his own, and who had actually received nothing but kindness at his hands. The murderer does not attempt to escape, but resigns himself without a struggle into the hands of justice. He expresses himself satisfied with the vengeance he has taken upon his victim; and a second loaded weapon, found in his possession, proves that he intended to follow up his bloody intention, if his first bullet had missed its mark. He not only expresses no contrition for the fatal act, but he justifies it as a righteous retribution for pecuniary injuries inflicted by the deceased. It is found, that so far from having cause to complain of Mr. Waugh's injustice, the wretched assassin was under deep obligations to that gentleman for continued acts of kindness, which he had repaid with the grossest ingratitude and insult. The murderer is placed at the bar of justice; the facts of the assassination are clearly proved; and the defence set up is, that the prisoner was not of sound mind when he committed the atrocious and cold-blooded deed. The jury bring in the unusual verdict of "Guilty of Wilful Murder," but they recommend him to merey on account of his "strong predisposition to insanity."

As this case presents some peculiar and novel features, and

as it is likely to introduce some changes, both of opinion and of practice, into our criminal jurisprudence, we conceive it to be proper to make some remarks upon the evidence adduced, and upon the conclusion to which the jury have arrived.

We may state, in the first place, that the facts of the assassination were so clearly proved and so fully admitted, that they require no comment; but the defence of insanity is a subject of considerable difficulty, and one which demands a rather close examination. Our own opinion is, that the man Westron, the prisoner, is of unsound mind; but, nevertheless, we are not disposed to find fault with the verdict of the jury, who find him guilty of Wilful Murder, but urge the predisposition to insanity as an extenuation of the crime. We believe it to be quite possible that a man may play a multitude of silly and mischievous freaks, and yet may possess sufficient mental power to be able to know the nature and consequences of criminal acts, and, therefore, to be amenable to punishment if he commits gross crimes. If, in the present instance, the wretched prisoner had undergone the extreme penalty of the law, we should have protested warmly against the commission of a legal murder; and we believe that the bereaved family of the deceased gentleman would have lamented most deeply so unnecessary a sacrifice, alike incapable of soothing their own affliction, and undemanded by the public voice. But, on the other hand, if the ordinary verdict of acquittal on the ground of insanity had been pronounced, we should have thought it a mere mockery of public justice to consign this foolish and mischievous person, for the rest of his life, to the comfort and the luxury of a modern lunatic asylum, where, it is true, he would be prevented from further criminality, but where he would be maintained at the public expense without any necessity for making an effort to gain a livelihood. We cannot help believing that such a termination in this and in similar cases, would merely confer an immunity from punishment upon a number of other silly and spiteful persons, who, being unable to gain their bread by honest industry, would, by the perpetration of criminal acts, obtain for themselves a notoriety which many of them covet, and a provision for life, which they are too idle to make for themselves. We, therefore, hope that the verdict of the jury will be followed by the results which usually attend a conviction for felony, with a recommendation to mercy; and that while the life of the assassin will be spared, he will be consigned to the convict's doom, and by hard labour and discipline made to control the extravagant wanderings of a disordered fancy, and furnish a useful example to other idle and dangerous young men like himself.

It will no doubt be recollected, that some years ago a number of foolish persons attempted the life of our present most excellent Queen, the only apparent motive being the notoriety to be gained by the attempt. Some of these persons are now comfortably lodged, at the public expense, in lunatic asylums; and it was found that, so far from repressing those attempts, the plea of insanity put in for the defence rather increased them; until a bill was brought in by the late Sir Robert Peel, to inflict a degrading and contemptible punishment upon the perpetrators; and ever since the passing of that enactment, the crime has been unknown among us. The fact is, that many persons, of idle habits, and ill-regulated minds, and who have, perhaps, moreover, an hereditary tendency to insanity, plan and concoct schemes of public or private annoyance, having sufficient sagacity to know that they will go unpunished on the plea of insanity, even although their wicked acts might have the effect of convulsing the social fabric of the country in which they live. But if such persons were aware that they would not be hanged, on the one hand, nor lodged for life in an asylum, on the other, but sent to work upon a treadmill, or to pick oakum, or to break stones, for the rest of their lives; or even to be whipped at a cart's tail, or to stand in the pillory, or to undergo any other contemptible punishment, their evil propensities would be restrained, and criminal outrages prevented.

We again earnestly hope that some such punishment will be inflicted upon the culprit Westron, and that these remarks will not come too late to produce an effect upon our superior legal authorities; and we may state most emphatically, that if idle and good-for-nothing persons such as he are merely to be assigned to a lunatic asylum, as a matter of course, then society is not safe from future attacks of a similar nature. If the man's insanity should become of that confirmed nature as to be beyond all question, then his condition can be examined by competent Medical officers, who will transfer him from the felon's cell to the wards of an asylum; and there can be no fear, considering the humane management of our modern prisons, and the Medical talent employed in their superintendence, that a hopeless or helpless lunatic would be treated with cruelty or neglect.

Recurring to the evidence in the case before us, we cannot but remark upon the very feeble Medical testimony brought forward on the part of the prisoner to prove his insanity. In other criminal cases of a similar nature, it is not unusual to find a whole host of Doctors, engaged in lunatic practice, brought forward on one side or the other; but in the case of Westron, the chief evidence was obtained from persons in the humbler classes of life, chiefly lodging-house keepers, who deposed to sundry foolish acts and foolish expressions, which led them to get rid of their troublesome lodger as soon as they could. One person, however, a policeman, not only deposed to silly and ridiculous acts on the part of the prisoner, but he stated that he had seen him on various occasions, engaged in making bullets, and cleaning a pistol; and a Medical witness, Mr. Farnham Flower, stated that he had given an opinion three years ago, as to the propriety of putting him under restraint. We cannot but regret that this step was not taken, and we must repeat an opinion which we have expressed upon former occasions, that it is far better to prevent, by timely restraint, the commission of crimes by crazy people than to bring them to a solemn trial after they have committed a murder. Here we must blame the laxity of our laws; it is quite possible, and indeed very probable, that a silly though cunning person like Westron, might have eluded a *superficial* Medical examination when brought to the test, and the law, in the absence of any overt act, would have shielded the lunatic, on the ground that he had *not yet* committed a capital crime. The policeman, too, seeing a half-witted man in his house making bullets and cleaning a pistol, knew too well the state of the law to attempt to put him under restraint, and he therefore contented himself with getting rid of him out of his house, without caring whether he would do mischief elsewhere. Here is an epitome of the modern treatment of incipient insanity; a man goes from one lodging-house to another, attracts the attention of the inmates by his absurd language and ridiculous conduct, and is seen at one house to be preparing deadly weapons for use; and yet all these good people are never struck with the idea, that such a person ought to be under some control, but they merely hand him over, pistol, bullets, and all, to any neighbour who will receive him; a Medical man declares that he is insane, recommends that he should be placed under restraint, but takes no steps to carry his recommendation into effect; and the conclusion of the drama is, that this half-witted person commits a diabolical murder in open day. He writes frantic and incoherent letters, containing obscure murderous hints, to his relative and benefactor, who properly takes him before a magistrate, but the latter discharges him on his *promise* to desist from annoyance! Verily our criminal law is grievously defective in its relation to insane and half-

witted persons; and as the prisoner in the present case was not deemed a proper subject for Medical treatment *before* the commission of actual crime, so let him now by hard labour at the hulks, suffer the punishment due to a criminal, until he is found to be actually a confirmed lunatic.

THE WEEK.

The elevation of Baron Parke to a life Peerage has caused a perfect tumult in the House of Lords, not because that respected judge has any enemies in the Upper House, but because it is assumed that the privileges of the Peers are attacked by the creation of a new order of noblemen. Whatever may be the political aspects of this question, we cannot for a moment doubt that the Queen has the power of making such Peers; and putting aside the use which might be made of such a power by a profligate Court and a corrupt Ministry, we cannot find in our own minds any valid objection to this promotion of men distinguished for their learning, their genius, or their public utility, but who may be without the requisite wealth to endow a title through succeeding generations. As bishops sit for life in the House of Lords, we cannot see any reason why lawyers should not sit there under the same circumstances; and we may add, that we see no reason why the most eminent of our own Profession might not sit in that exalted assembly. We do not know that any discredit would have attached to the peerage, if such men as Sir Astley Cooper or Sir Charles Bell had been so elevated: on the contrary, we think that the usefulness of the House would be considerably enhanced in the public eye by such an admixture.

Mr. Headlam has obtained leave to bring in a Bill of Medical Reform during the present Session of Parliament. Lord Palmerston promised to give the Bill his support. Mr. Brady, in advocating the introduction of the measure, took occasion to observe, that the chief obstruction to the passing of a Medical Reform Bill emanated from the corporate bodies of the Profession itself. That gentleman has complained that his speech was inaccurately reported, and that he expressed the warmest regard for the personal character and reputation of those who held office in the different corporations. We do not know that Mr. Brady has any reason to be dissatisfied with the report of his speech, and we believe that he has uttered no more than the truth when he alleges that the real difficulties in the way of Medical Reform are to be found in the conflicting views of the Medical corporations. Feeling, as we do, the necessity for some measure which shall establish our Profession upon a secure foundation, we hope that the Government will assist us with their countenance and support; and, although we should wish that the rights of all the Colleges, Universities, and Halls, should be duly considered, we at the same time hope that no mere selfish interests will be allowed to stand in the way of a public good. All perhaps will be obliged to yield something: but if a remedy should be found for the present chaotic state of our Profession, all parties will have reason to feel satisfied at the result.

The elections of Medical Officers of Health still proceed very slowly in the Metropolitan districts. A few appointments take place weekly, but in some parishes even the amount of salary is not yet fixed. We are informed that in one district the appointment has been put off altogether for six months. In another the salary has been fixed at £100 per annum, after a vehement struggle on the part of some of the Vestry to get the duty done for £40, by giving £10 each to the four district Medical officers. In justice to the principle of local government, it must be admitted that many of the appointments already made have been very judicious, and we hope that a competent staff of Medical Officers will be eventually established, who will materially assist in the diffusion of sound hygienic principles and practice. In a letter which appears in our columns to-day, it will be seen that a mode of election prevails in some of the Vestries which, if carried out, will lead to the most perplexing results, and may terminate not only in throwing out a very competent candidate, but in producing effects not contemplated by the electors themselves. It seems to us the fairest system for each member of the Vestry to vote only for one candidate at a time: for, in pursuing any other course, it will be apparent that by unfair combination in favour of some person or persons, whom the electors *do not really intend to support*, the most promising candidate may be thrown out at once by the first vote.

GENERAL CORRESPONDENCE.

UNION MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me a little space in the *Medical Times and Gazette* in order to arouse the sympathy and enlist the co-operation of my Professional brethren on behalf of the Union Medical officers. It has been said, let them unite and fight their own battles; but in many instances, owing to their isolation and the necessity for personal attendance on the sick poor of a widely-spread district, this is impossible. It is true, some are afraid of

> "Some petty tyrant,
> Whose scant domains geographer ne'er noticed;"

but even these have a claim on us as members of the same Profession. Surely the licensing authorities are ready and anxious to lend a helping hand. We have paid their fees, have been admitted by them into the Profession, and have taken an oath to maintain the dignity and respectability of that Profession. It cannot be that they are ignorant of the fact that one-third of the Medical men of this country, having the care of the lives and limbs of two-thirds of the whole population, are oppressed and degraded by the present system of Poor-law management. Again, we have a claim on our non-Union and (generally) more fortunate brethren. Is it possible that 3000 members of the Profession can be treated with great injustice and the whole body not suffer?

Let the Colleges come forward as they are bound to do. Let the Profession universally give us their support; and, above all, let us endeavour to help ourselves.

A Committee should be immediately appointed to sit in London, and a Petition to the House of Commons prepared; and I feel persuaded, that any suggestions for the improvement of the present system, provided that our demands be just and reasonable, will be promptly and cheerfully responded to. I am, etc. R. Grimbly.

Banbury, February 6, 1856.

LOCAL ANÆSTHESIA FROM COLD.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is expected of every one who brings forward a new therapeutical agent, that he should watch its progress, and by correcting any error that may exist on the subject, prevent its misapplication.

In the report of Hospital operations in the last number of the *Medical Times and Gazette*, a case of non-malignant tumour is mentioned, in the excision of which cold had been employed to produce insensibility, and which is represented by Mr. Birkett, of Guy's Hospital, as a case very unfavourable to its character as an anæsthetic. It is said that the wound sloughed after its use, and was five weeks in healing.

I happened to see the patient on whom this operation had been performed, some weeks before she left the Hospital, and in the presence of the dresser who had charge of the case. On examining the wound, which was healing by granulation, I observed no mark of sloughing on the skin; and I was in-

formed, that in producing anæsthesia, the frigorific mixture of ice and salt had been kept upon the tumour for twenty minutes; I understood, likewise, that ice had been afterwards applied to the part during the night.

This is not the mode which has been recommended of applying cold in operations, nor that which has been adopted by any of the Surgeons who have published reports on the subject; and the difference between his practice and theirs is so great, that I am much surprised at Mr. Birkett's venturing to adduce this case as a fair illustration of local anæsthesia from cold. In the report, indeed, it is stated that the ice and salt were applied for only "seven or eight minutes," but even this period is at least of four times longer duration than had hitherto been the rule when there was no inflammation to subdue. The time the congelation lasts is the amount of its dose, and the regulation of this is, respectively, as important as the apportioning the dose of opium or strychnine. Would Mr. Birkett consider the effect of the exhibition of an ounce or half-an-ounce of laudanum, a fair test of its remedial properties and safety?

In my pamphlet on local anæsthesia, I have stated that the insensibility of the skin is usually complete after the frigorific has been kept in contact with it half-a-minute. Mr. Ward, of the London Hospital, mentions, in a report which appeared in the *Medical Times and Gazette*, on September 2, 1854, that, in the excision of a tumour, complete anæsthesia was produced by cold in one minute; and Professor Coste, of Marseilles, informs us, in a paper lately inserted in the same journal, that the frigorific application has, in his practice, and in the same class of diseases, been usually of two minutes' duration. I should not, in the least, fear sloughing of the skin from the long period during which Mr. Birkett keeps it congealed; but I should expect, what appears to have taken place in the case at Guy's Hospital, that its vitality would be so much lowered, as to prevent the wound from healing rapidly, or by the "first intention."

It is singular, considering the number of Surgeons who have recorded their experience of congelatien in operations (including Velpeau, in his work on the breast, containing an account of congelation), that Mr. Birkett should not have discovered the reason of the difference of the results from their practice and his own.

I have said that I saw no marks of "sloughing," and I therefore conclude that something different from gangrene is intended to be expressed by this term; or it may be, that congelation and gangrene are so associated in certain minds as cause and inevitable effect, that even the sense of sight is deceived, and desquamation of the cuticle is mistaken for destruction of the skin. Professor Coste, reasoning from physiological facts, as well as from much experience in the use of anæsthetic congelation, says,—that gangrene cannot possibly be so caused; but, in expressing this opinion, he could not, of course, have contemplated the possibility of any one using so powerful an agent without regard to limit or time.

Instead of retarding the healing of wounds, congelation, properly employed, accelerates this process; but, granting it were otherwise, and that the healing should occasionally be rendered slower than is desirable, ought this to be an objection of the slightest significance to an expedient that prevents both pain and inflammation? Should it be so deemed by one who must often have observed inflammation proving fatal, by preventing the healing of operation-wounds, and who lately saw one of his patients expire on the operating table of Guy's Hospital from the effects of chloroform? I am, etc.

February 2, 1856. James Arnott.

P.S.—Since writing the above I have received the following statement respecting local anæsthesia from Dr. Vesalius Pettigrew. It was politely sent in compliance with a request which I took the liberty to make, that, as he appeared, from a recent communication on the subject in the *Medical Times and Gazette*, to have paid particular attention to the exact duration of the application of cold, he would favour me with a statement of the period occupied in the cases in which he had used it. His report presents a singular contrast to Mr. Birkett's, as respects the mode in which the anæsthetic was employed, and, therefore, as respects the results.

I have only to add, that in a letter accompanying this statement, Dr. Pettigrew expresses the opinion that the healing of wounds after congelation may be protracted by the circumstance of their edges not having been wiped previously to being strapped up:—

Case 1.—November 26. J. T., Wilton-street, aged 52. Fatty tumour in popliteal region. Congelation, 1 minute 45 seconds. Union by first intention, third day.

Case 2.—November 27. M. A. C., Belgrave-square, aged 26. Bursal fibrous tumour over patella. Congelation, 2 m. 30 s. Union by first intention, fourth day.

Case 3.—December 3. C. L., Manor-terrace, Chelsea, aged 37. Nævus, size of a walnut, upon the side of the leg. Double ligature passed through its base and tied. No pain. Congelation, 2 m. Ligatures sloughed through December 11. Healed, by granulation, in about a fortnight. Note.—If congelation favoured sloughing, this nævus would assuredly have separated in a much shorter period.

Case 4.—December 7. B. C., Orchard-street, aged 28. Removal of two supernumerary fingers. Right hand, congelation in 2 m.; left hand, 1 m. 30 s. No pain. Edges of wound healed by first intention on the 11th.

Case 5.—December 19. Mrs. ——, Harker-street, Chelsea, aged 31. Fistula in ano, result of an abscess caused by riding on too small a saddle for twenty miles. Congelation, 3 m. No pain. Made to heal by granulation. The difficulty in this case was to prevent the wound closing too soon.

Case 6.—January 11. M. S., Bermondsey, aged 33. Fatty tumour upon the shoulder. Congelation, 2 m. 10 s. Operation performed in my presence by Mr. F. Pettigrew. No pain. Healed by first intention on the 14th.

Case 7.—January 14. Mrs. T., South-street, Grosvenor-square, aged 41. Scirrhous tumour in the left breast. Congelation 1 m. 5 s. No pain felt in the long incision through the integuments, but much pain experienced in the deeper dissection. No union of the edges, caused entirely, I believe, by a hæmorrhage which occurred upon the second day, the coagulated blood separating the lips of the wound.

Case 8.—January 24. Mrs. M., Eaton-street, aged 40. Abscess in the theca of the thumb. Congelation attempted for a quarter of an hour, even in actual contact with the ice and salt, but without success. Pain certainly not so acutely felt as under ordinary circumstances.

Case 9.—January 31. E. K., Notting-hill, aged 35. Encysted tumour on the back of the scalp, fourteen years' growth. Congelation 1 m. 5 s. No pain. Union by first intention, February 2.

I would take the liberty of observing, with reference to the 8th Case related above, that when inflammation is present, the frigorific mixture will often require to be stronger than that consisting of ice and common salt. A few days since I arrested the severe inflammation of a whitlow (a similar affection, but not so advanced), by desiring the patient to move about the diseased part of the finger in a semi-fluid mixture of ice, salt, and sal-ammoniac. Congelation was thus speedily produced. When, in such cases, it is employed as an antiphlogistic, it is necessary to continue it for a much longer period than is requisite or proper when it is used merely as an anæsthetic in operations.

ERRONEOUS SYSTEM OF ELECTING OFFICERS ADOPTED BY THE GENERAL AND LOCAL BOARDS OF WORKS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The system of voting for competing candidates, which has frequently been adopted by the General and District Boards of Works, is so manifestly erroneous in principle, that I trust you will allow me briefly to expose its objectionable character in your columns.

The only fair method of testing the sentiments of a meeting, regarding competing candidates, is to allow each elector to vote only for the number of persons to be chosen. The candidates with the greatest number of votes may be then declared elected; or by another method, the candidate who has the smallest number of votes may be removed from the list, and successive votes taken; the candidate with the fewest votes being thrown out each time, till at last the elected candidate or candidates remain alone in the field. In this way, the votes given at each voting can never exceed the number of voters present, provided one candidate only has to be chosen; and if the roll of members is called

over, and their votes marked, the frequent mistakes which arise from errors in counting a show of hands will be avoided.

The method generally adopted, however, by the Metropolitan Boards is very different from both the methods which we have described. Successive votes are taken, and the candidate with fewest votes is eliminated each time; *but then the electors are actually allowed to vote at each round for one, two, three, or more candidates, as the case may be!* The result is generally at variance with that which was expected—in fact, the result is a matter of chance, or of tactics, and not of straightforward voting. The supporters of the various candidates work by absolute plumping, or by various modifications of plumping; and in the excitement of the scene, miscalculations are constantly made, as to the ultimate effect of voting conjointly in the early rounds for one, two, three, or more persons. Opposing parties can at once remove an antagonist formidable to all; and then fight out the battle among themselves. At the Holborn Board on the 4th instant, there were present forty-two members who had to elect an Officer of Health, from seven or eight candidates. After the candidates who received no votes had been removed from the list, the chairman announced that the remaining candidates were to be voted for, each elector being at liberty to vote for one, some, or all of them, or to abstain from voting. The candidates were then put up *seriatim*. Some understood, and some did not understand, the effect of voting conjointly for particular candidates along with the candidate they wished to be elected. For example: the gentleman who seconded Dr. Cormack voted only for him so long as his name remained on the list; but the gentleman who proposed Dr. C. voted for him in conjunction with Mr. Pollock and Dr. Gibbon; a supporter of Mr. Pollock, from a miscalculation of chances, voted for Dr. Cormack and Dr. Gibbon as well as for Mr. Pollock; and, without citing all the instances before us, we may add, that some of Mr. Hugman's supporters voted under similarly erroneous impressions. The only indication of anything approaching to previous concert was this: that some supporters of particular candidates voted for all the candidates, excepting him whom they regarded as most opposed to their favourite.

The subjoined is a statement of the votes given at the four concluding rounds; and a mere glance at it is sufficient to prove that the elements of chance and calculation [and miscalculation?] entered largely into the proceedings:—

	1st Round, of 5 shows of hands	2nd Round, of 4 shows.	3rd Round, of 3 shows.	Fourth Round.
Pollock . .	26	19	17	..
Hugman .	24	21	19	19
Gibbon . .	23	27	23	23
Cormack .	17	16	..	..
Hunt . .	2	..	..	..
	92 votes, by 42 electors	83 votes, by 42 electors	59 votes, by 42 electors	42 votes.

Had a few more of the supporters of particular candidates voted only for their own candidates, so long as they remained on the list, the result would have been different; or, had each elector voted *only for one candidate* at each voting, Dr. Gibbon would, it is certain, have gone off the list very early. After comparing memoranda, two well-informed gentlemen on opposite sides are of opinion that the results of the votings would have been nearly as follows, had only one candidate been voted for at each round. Our data may be right or wrong; but we are at least correct, when we say that many members of the Board feel that they gave some of their votes from a miscalculation of chances; and that the result equally astonished all concerned. Three roll-calls, with a single candidate voted for at each time, would, as we have been told, and believe, have shown nearly the subjoined figures as their results:—

	First Vote.	Second Vote.	Third Vote.
No. 1 . .	12	16	23
No. 2 . .	5	—	—
No. 3 . .	11	12	—
No. 4 . .	14	14	19
	42	42	42

It is not because we have been beaten that we write this letter; it is because we regard the complex system of voting, which was adopted, as utterly incapable of eliciting the sentiments of a majority of a meeting, and, consequently, as a very objectionable, and perhaps even an illegal, method of election. The gentleman elected was fitted for the post; there has been no injury done to the public; but it might have been otherwise. We trust, therefore, that in future the objectionable system of voting which we have endeavoured to expose, may never again be resorted to. It is not fair to subject professional candidates to the hazards of a game, which requires the players to study thoroughly their parts; and which, even then, chance will partly decide.—We are, etc.

John Rose Cormack, M.D., 37, Russell-square.
William C. Hugman, 19, Great Ormond-street.
Timothy Pollock, 26, Hatton-garden.

CIVIL PATHOLOGICAL COMMISSION.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have the honour to request, that you will allow me to correct an erroneous statement which, I presume, inadvertently found its way into your last impression.

In a paragraph, under the heading of "The Week," it is stated that the Civil Pathological Commission, sent out to the Army of the East has been recalled, and that Military Pathological Boards have been appointed to supersede it. Now, the facts connected with my mission to the East, from which I have but just returned, are briefly these:—When invited to undertake an investigation into the Pathology of the diseases of the Army in the East, the option was distinctly offered to me by the distinguished Civil Medical Authorities in whose hands the nomination to such offices was vested, of extending the inquiry over a long or a short period, as I should then choose to determine. Guided by the information then placed before me, and also having in view important professional and personal interests in Dublin, from which I could consent to withdraw myself only temporarily, I stated that I could not absent myself from home for any very protracted period. My original letter of instructions was made out accordingly for a limited period; but I was allowed a certain discretionary power as to time, and also as to the scene of my labours, and this I found it necessary to exercise, so that my stay in the East considerably exceeded what I originally supposed would be its duration.

With regard to the Military Pathological Boards, they have, I believe, been nominated, in common with some other Boards, for scientific purposes, and in accordance with the usages of the service, by order of the Director-General of the Army Medical Department, with whom I have never had the honour of having relations of any kind whatsoever. And that these Boards in no way superseded the commission of which I had the honour to be chief, it will only be necessary to say, that while I was actually in office in the Crimea, Military Pathological Boards were nominated by Sir J. Hall, K.C.B., and actually put *en fonction*. If only it be arranged that the gentlemen composing these Boards be allowed sufficient time (by being detached from other duties, which I conceive to be absolutely essential) to devote themselves fully to the prosecution of Pathological research in the Crimea, as well as at Scutari, no one will more rejoice than I at their nomination. No one can more fully appreciate the splendid opportunities for scientific Medical inquiry which such a field affords than I; and I cannot but anticipate most valuable results to science from the labours of the Military Pathologists. Immense opportunities for extended Pathological research of the highest kind exist, not only in every Division, but in every Regiment in the Crimea. No one, not practically familiar with that vast "Camp before Sebastopol," can appreciate the difficulties, and the absolute *fagging* necessary to follow up observations daily accumulating on one's hands, in even *two* Divisions; not to say, as I have sometimes succeeded in effecting, in three and even in four different Divisions of the Army, in one day. I would, therefore, most gladly see a centre of Pathological inquiry, in at least, every Division of the Army in the Crimea. At Scutari, likewise, I feel certain that much may be added to science by the Board there established.

Observations of very considerable interest have been made by myself and my assistants during our stay in the East, and I make no doubt that in due time the labours of the Military Pathological Boards will make known to the Profession additional inquiries, of equal if not far greater value to science.

In conclusion, I must add, that I have brought from the Crimea too many memories of kindness, courtesy, hearty good fellowship, and even warm friendships too, not to wish a soul-felt "God speed" to the labours of all our Medical brothers of the Army in the East. I am, etc.

ROBERT D. LYONS.

Trafalgar Hotel, Spring Gardens,
February 9, 1856.

SUPPLY OF VACCINE LYMPH.

[To the Editor of the Medical Times and Gazette.]

SIR,—It may not be known to your correspondent "Q," (*Medical Times and Gazette*, Feb. 2,) that the Small-Pox and Vaccination Hospital was removed, about five years since, from Battle-Bridge, where the population is dense, to Highgate Hill, where it is comparatively thin. The number of applicants for Vaccination has been consequently very much diminished, and, of course, *pari passu* with this diminution, the means of supplying Vaccine Lymph to the Medical Profession.

The working, too, of Lord Lyttelton's Vaccination Act has tended, and will tend, yearly, more and more, to lessen the number of applicants for Vaccination to the existing Vaccine Institutions, and will cut off gradually the sources of supply of lymph hitherto depended on by the Profession. This result I clearly foresaw, and addressed a letter on the subject to his Lordship at the time of the passing of the Act.

The Small-Pox and Vaccination Hospital does not receive, not has it ever received, anything from Government, or otherwise, for the supplies of Vaccine Lymph afforded to members of the Medical Profession. But the Medical Officers of the Hospital will endeavour, so far as their resources allow, to continue to afford such supplies. They beg it, however, to be clearly understood, that considerable forbearance will, at times, be required from applicants, on account of delay in answering their letters; and the Medical Officers further beg it to be clearly understood, that they will be quite unable, every year, to render supplies of Vaccine Lymph from Christmas to March. I am, etc. J. F. MARSON.

February 11, 1856.

DEFICIENT SUPPLY OF NAVAL MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—By looking at the January *Navy List*, it may be seen that for certain 96 ships in commission the proper peace-complement of Assistant-Surgeons is 152; the number actually present to attend to the sick and wounded is only 44: the number wanting is 108. There are also seven Surgeons wanting, making 115 Medical vacancies in 96 ships! From the scarcity of Assistant-Surgeons, many are unfairly retained in that rank, instead of being promoted to be full Surgeons, as their lengthened service and war-claims entitle them to be. The Admiralty have lately improved the pay, half-pay, retirement, etc., of masters and paymasters; and till they do the same to the Surgeons, they cannot expect to have a sufficient supply of Medical men, because as the position of the Assistant-Surgeon has lately been somewhat improved, the low pay and other disadvantages of the full Surgeon are *now* the things which deter young Medical men from joining the sea-service, where their Profession is so much undervalued.

January, 1856. I am, etc. HOUR OF BATTLE.

MISTAKE IN DIAGNOSIS.

[To the Editor of the Medical Times and Gazette.]

SIR,—As the guardian of the girl on whose body a Coroner's jury sat on Friday and Saturday last, in the Baring Arms, Baring-street, Hoxton, I beg you will give publicity to the following correct statement of facts, in order that the public may have some chance of guarding against a set of incompetents who, under the most plausible appearances, at once prey upon the pockets of their dupes, and sacrifice at the shrine of hollow pretension the youth and health of enlightened England.

The unfortunate subject of the inquest was taken seriously ill only on the afternoon of Friday, Feb. 1, and, though Medical aid was instantly sent for, no remedy of any sort was adopted, except an application of vinegar to the forehead, till eleven o'clock that night, when half of a grey powder was administered. From that time till she died, on Sunday evening, Feb. 3, no active treatment was resorted to by the Medical man in attendance on the case. In short, the case was treated as one of diseased liver, while the Medical certificate of death stated it as "Typhus fever of twenty days!" This was such an outrage upon the common sense of the relations as at once to demand an inquest.

The inquest on Friday was adjourned to Saturday to allow of a *post-mortem* examination, when it was found that the case had been misunderstood.

As the Coroner attached blame to me for having employed one who could render so little assistance, I beg it to be understood that I did not knowingly employ an unprofessional man.

It is to be earnestly hoped that the Bill about to be introduced to the notice of Parliament may be vigorously supported, in order that England may purge herself from the guilt of allowing with impunity uneducated impostors to tamper with human life, and to throw unsuspecting families into mourning. I am, etc.

WM. STANLEY HARKNESS,
Schoolmaster.

Baring-street, Hoxton.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

FEBRUARY 5, 1856.

Mr. ARNOTT, President, in the Chair.

(Continued from page 151.)

MR. ATHOL JOHNSON showed a specimen of

CYSTIC DISEASE OF THE TESTIS IN A CHILD.

It had been removed by Mr. Johnson at the Hospital for Sick Children from a child of the age of 2 years and 2 months. The testis had been first noticed to be affected when the patient was 3 months old, but some enlargement might have existed even at birth. It increased in size at first slowly, afterwards with greater rapidity, till, at the time of the operation, it measured between six and seven inches in circumference. The child appeared perfectly healthy in every other respect.

The tumour, on examination, presented an infinite number of cysts of various sizes, filled with a gelatinous, transparent fluid; some of these cysts, near the circumference, were lined with the usual pavement cells, but the greater number presented distinct *ciliated* epithelium. Occupying the fibrous structure between the cysts was a large mass of bone, with lacunæ and canaliculi. There were no cartilage cells.

Mr. Athol Johnson remarked, that the case presented several points of interest. In the first place, with respect to the age of the patient. The disease is one more especially of middle life, while in this instance the affection existed either at birth or very shortly afterwards. In the next place, the presence of a quantity of bony tissue in this form of disease of the testis is unusual; and this, together with the age of the patient, rendered the diagnosis more difficult, by rendering it possible that the disease might be one of inclusion of fœtal remains within the testis.

Lastly, the cysts themselves, for the most part, differed from those usually described, in being lined with ciliated epithelium; and then, from their position and from the size to which they could be traced, did *not* appear to arise in dilatations of the seminal tubes, though some near the surface, which exhibited the ordinary pavement epithelium, most probably had this origin.

Dr. Hillier showed a specimen of

CIRRHOSIS OF THE LIVER IN A CHILD.

The patient, a girl, aged 13, had long been delicate, and had suffered from all the usual symptoms of diseased liver. She had had jaundice, dropsy, repeated hæmatemesis, and had passed blood by the bowel. Before death

the ascites, which had been considerable, quite subsided. At the autopsy the liver was found to present a marked example of extreme cirrhosis. The whole left lobe and part of the right were affected, the lobulus spigelii being hypertrophied and comparatively healthy. Externally the diseased lobes were so nodular as to much resemble the convolutions of a brain, their section showed brawny tissue interspersed with glandular lobules of a buff yellow colour. The stomach and intestines contained blood. The spleen was very large from congestion. There was no fluid in the abdominal cavity.

Dr. Brinton remarked upon the very unusual circumstance that in such an extent of hepatic disorganization no ascites was present.

Dr. Hillier thought it accounted for by the fact, that during the last few days of life the patient had passed very large quantities of urine.

Mr. Hutchinson brought before the Society drawings from the microscope, illustrative of

THE CONDITION OF HAIRS IN RINGWORM.

The case from which they had been obtained (a child under the care of Mr. Filliter, in the Marylebone Infirmary) was, in certain respects, exceptional to some observations of the subject communicated to the Society by Mr. Hutchinson during a former session. The patches themselves looked far more like a thickly-scaled psoriasis than ringworm (*Tinea tondens*). The hairs of many of them passed through the crusts whole and unbroken, and grew to some length. Under the microscope many hairs were seen to be surrounded on all sides by epithelial scales and sporules of fungus, (*trichophyton furfurans*,) but themselves not invaded by the latter. The majority were, however, eaten into in the usual manner, and broken off at the end. The great abundance with which the fungus existed between the hairs was also unusual, and gave conclusive support to the opinion that the sporules are parasitic, and not as Mr. E. Wilson has held, the result of fatty degeneration. In ringworm crusts, generally, sporules only are seen, and few or none so arranged as to form filaments; in this, however, short filaments were not very unfrequent. The sporules were also much larger than those ordinarily found. The drawing showed the appearances alluded to, and also exhibited the fungus of true Favus by the side of that of ringworm, for the sake of comparison between the two. It had been executed by Mr. Tuffen West.

Mr. Henry Thompson asked whether Mr. Hutchinson did not think that the peculiarities alluded to might be explained by supposing that in this case favus and ringworm existed conjointly.

Mr. Hutchinson replied in the negative, and gave some reasons for his opinion.

After the usual vote of thanks to the exhibitors, the meeting adjourned.

EPIDEMIOLOGICAL SOCIETY.

Monday, February 4, 1856.

Dr. Babington, President, in the Chair.

A paper was read entitled

"OBSERVATIONS ON THE CHOLERAIC EPIDEMIC THAT PREVAILED DURING 1854 AT ST. LAURENT D'AIZOUZE, AND ITS ENVIRONS."

By Dr. RAYMOND FALOT;
Translated from the French, and communicated to the Society, by Dr. W. Camps.

The author commenced by stating that in the early part of July, 1854, there prevailed hereabouts, not only diarrhœa and other gastro-intestinal derangements, but also intermittent fevers, as well as much general indisposition amongst the inhabitants of these parts. He treated, in the first place, of the etiology of the disease, referring more especially to the difference to be drawn between its primary and its secondary or exciting causes. He described in a minute and graphic manner its symptomatology, detailing the various symptoms as they appeared and differed in the lighter and in the more severe cases. Well-marked gradations were observable in the gravity of the symptoms in general. In some cases, the breath of the patients appeared to be cold; and in many, the tongue and the extremities were of a marble coldness. At first, there was a diminution, and ultimately, a suppression of the urinary secretion; dryness of the cornea, and of the mouth; complete integrity of the intellectual faculties; vertigo; singing in the ears; and in several cases, diminution of the sight. Improvement in the symptoms took place chiefly in young people and in adults. There were cases in which reaction was attended with meningitic complications, characterized by a comatose condition, alternating with subdelirium, convulsions, twitchings of the tendons, etc., etc.

Invasion of the Disease.—In almost every case, the disease commenced with prodromata. It was not sudden in its attack, in the common acceptation of that term, except in the case of some infants. Almost all had diarrhœa; for there were were only three cases in which we were unable completely to establish the presence of this symptom. The progress, the termination, and the character of the disease, were then treated of by the author. The duration of particular cases, and of the epidemic in general, was variable relatively to each individual: in those cases in which death occurred, the longest period did not exceed five days; the shortest period was from three to four hours, in the case of some children. In the district of St. Laurent d'Aizouze, having a population of 1700 persons, the total number of deaths here from this epidemic was 33; and it was most severe during the month of September. At Aimarques, in a population of 2327 inhabitants, the whole number attacked was 24. At Lunel, in a population of 7000 persons, there were 120 deaths in 1849, and only 47 in 1824. At Aigues, in a population of 4046 persons, the number of deaths was 209. The diagnosis of the disease was then treated of, and its points of resemblance with some other diseases noticed by the author.

Prognosis.—At the onset of the epidemic, there were many more deaths than there were in the middle or at the termination thereof. Towards the decline of the epidemic, the disease became proportionally mild. Cutaneous eruptions were observed in four patients, in whom convalescence did not exceed the ninth day. There was one solitary instance of parotitis in a patient, who speedily recovered after a very severe attack. Furunculi appeared in another patient, two days after he had begun to take his ordinary aliment.

Treatment.—The diarrhœa was treated by repose, careful diet, a mucilaginous decoction of rice, an aromatized drink, containing from ten to thirty drops of tincture of opium, and an injection of starch, with a like quantity of the same; the external application of heat as resorted to in some cases, with infusion of tea. In some cases ipecacuanha was administered. For the cramps, dry or terebinthinate frictions, and sinapisms, were applied. In cases attended with cerebral congestion, leeches were applied behind the ears. The mode of propagation of the disease was next discussed, and the opinions of various authorities adduced in connexion therewith, the author giving some instances in which the evidence was in favour of its communication by contagion. The author infers from these, and from a multitude of others which he could adduce, that there exists in cholera a miasm, an emanation that is perfectly transmissible. He concluded his paper by referring to the subject of contagiousness, as exhibited in some cases of fevers, and more particularly, as observed by one of his *confrères*, practising in a neighbouring part of France.

Dr. Beattie testified to the value of the emetic treatment in cholera. In India he had adopted it with great success, and never feared to employ it. By means of a saline emetic he had been able to produce vomiting, even when there was no pulsation felt at the wrist; and as soon as this effect was produced, symptoms of reaction immediately took place.

The President said he had seen several patients recover by drinking very large quantities of cold water, by which vomiting was produced, and the heart's action thus stimulated.

Dr. Snow said he was interested in some of the facts mentioned by the author, which seemed to prove that intermittent fever was communicable, an opinion to which he had arrived rather by analogy than by direct observation. He imagined that it was communicable by some indirect way, as in the case of the tape worm. Dr. Snow then mentioned several facts, with a view to show that cholera was contagious.

Dr. Greenhow said he never saw a case of cholera which could be proved, beyond any doubt, to have been propagated by contagion; and he mentioned, among other facts, in favour of the non-contagion theory, the free intercommunication

which took place between the inhabitants of Newcastle and Tynemouth during the cholera attack of 1853, and all but entire exemption of the latter town from the disease. With regard to intermittent fever, he said, that during fourteen months, when he was stationed at the Hospital at Montpelier, he did not remember a single student or nurse being attacked by the disease, though hundreds of cases were admitted.

Mr. Lord expressed his conviction that all the cholera cases that occurred at Hampstead were owing to the inhalation of malaria elsewhere, and that the disease did not spread by contagion.

Mr. Tucker said he once visited a man from Lincolnshire, who had the ague, and in a few days the wife and child were attacked with the same disease. He afterwards ascertained that the man had brought a bag of mould with him from Lincolnshire, from which the wife had filled her flower-pots.

A conversation then took place on the influence of malarious districts on various forms of fever; Dr. Snow contending that no adequate proof had yet been given of the existence of malaria.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Saturday, February 9, 1856.

Dr. Snow, President, in the Chair.

Mr. Weedon Cooke read a paper on

A CASE OF TETANUS.

The President said he believed that persons might die in tetanus without being carried off by the spasm. He once administered chloroform by inhalation to a girl suffering from tetanus; the spasms were thus kept away, so that nourishment could be taken, but the girl gradually sank and died. This led him to believe that there was something in the constitution of which tetanus was only an external sign. Several cases, however, were recorded in which tetanus had been cured by the inhalation of chloroform; and one case, thirty years ago, was cured by the inhalation of ether.

Dr. Mackenzie referred to a case of tetanus published by Dr. Horsack, cured by the administration of very large doses of wine every half hour, no other medicine being given; and to another case, published by Mr. Dalrymple, in which cold affusions were employed with good results.

Dr. Thudichum said, that in such cases, if the amount of urea discharged by a patient was compared with the amount of nourishment taken, it was a simple matter of calculation how soon the body would be worn out by the disintegration of tissue.

Dr. Routh said, if the condition of Mr. Cooke's patient was inflammatory the treatment was wrong, as it would only tend to increase the amount of inflammation. If the condition was not inflammatory it must have arisen from some poison in the blood—most probably albuminuria.

Dr. Rogers exhibited a preparation showing an aneurism in the arch of the aorta. The patient, aged 60, died suddenly. He had for some years suffered from difficulty of breathing, and recently from cough, owing, it was supposed, to a diseased state of the lungs, which, however, on a *post-mortem* examination, were found to be in a healthy condition.

Dr. Semple read a paper on "The Prophylactic and Curative Treatment of Continued Fevers," which will be found in our columns as an Original Communication.

Mr. Harding thought that the subject of fever, though of the greatest interest to the Profession, had been greatly neglected by it. He could not agree with Dr. Semple in his charitable supposition that previous Practitioners had been correct in their treatment, the type of disease with them being different from its present form. Their plan was to treat the early stage of the disease, the modern practice being an expectant plan of treatment with reference to the second and more dangerous stage. The fact of patients not doing so well in the hospital arose, he believed, from the circumstance that they belonged chiefly to the lower classes, and that their constitutions were less capable of resistance than those of persons in better positions in life.

Dr. James Bird referred to his experience in India, which, he said, soon convinced him of the fallacy of the opinion which he had received when a student, that by bleeding a fever patient sufficiently he would be sure to cure him. The modern change of treatment was not, he believed, owing to a change of type, but to a better system of pathology and more judicious practice. Out of the malarious fevers caused by the overcrowded state of the dwellings of the poor, and the septic emanations consequent thereupon, pure typhus could be produced; so that some of the distinctions which prevailed in this country in regard to fever, were not now admitted by Continental physiologists. The author's general remarks on fever were very valuable, and were evidently founded on much experience and accurate observation.

Dr. Thudichum alluded to the researches of Pettenkofer, who, he said, had found that the causes producing cholera were analogous to those which produced typhus fever. The latter disease he found extremely prevalent in houses that were exposed to the emanations of decomposing fæces and urine. In Munich the disease was so common that almost every family who entered the town was sure to have some of its members attacked, and this was considered to be owing to the want of proper arrangements with regard to water-closets. Many of the inhabitants used wooden pails, and the cesspools into which they were emptied were scarcely ever cleaned. It had been found that the typhus poison was much more readily taken up by black than by white clothes. Normal fæces had an acid reaction, but the reaction of the fæces, unaffected by medicine, in cases of typhus, was strongly alkaline, a circumstance which he thought militated against the administration of carbonate of ammonia in that disease. As in tetanus, so in typhus, the amount of urea discharged was much greater than in health. The disease, as was properly remarked by Dr. Semple, frequently went on quite unobserved, as in the case of Professor Wilhelm, who died suddenly, and it was subsequently found that the whole of the intestinal canal was full of typhoid ulcerations, one of which had burst. The treatment by phosphoric acid, in two-drachm doses, had met with great favour in Germany.

The President said, with reference to the production of cholera by evacuations, Pettenkofer stated that such evacuations must be those of a cholera patient, and be subject to a peculiar fermentation.

Dr. Thudichum said, that was not the Professor's view in reference to typhus.

Dr. Camps thought it had been abundantly shown that typhus could be produced by the decomposition of animal matter generally, and in proof he referred to several cases which had come under his own observations.

Dr. Headland asked the author if he really considered quinine altogether useless in the cases to which he had referred. The analogy existing between intermittent and remittent fevers, might lead one to suppose that quinine, which was so serviceable in the one case, might be also useful in the other. He saw no reason for withholding carbonate of ammonia simply on the ground of its being present in the fæces, where it only existed as a product of decomposition.

Dr. Semple, in reply, must adhere to the opinion that the type of fever had really changed, and that bleeding, which was now contraindicated, was formerly useful. He did not agree with Dr. Bird that the distinctions of fever into typhus and typhoid were not recognized on the Continent, although it was true that typhoid fever was most prevalent in Paris. In reply to Dr. Headland, Dr. Semple observed, that he did not positively condemn the quinine treatment of fever, but, after the researches of Dr. Barclay, Dr. Bennett, of Edinburgh, and Dr. Peacock, he did not attach great importance to the efficacy of this alkaloid in cutting short the attacks of the disease.

The Society then adjourned.

HARVEIAN SOCIETY.

January 17, 1856.

Dr. Ramsbotham, on taking the chair for the first time, congratulated the members on the flourishing condition of the Society, and on the number of new names that have recently been added to the roll. After expressing his acknowledgment for the honour conferred upon him, he assured them of the deep interest he took in the prosperity of the Society, and of his anxious desire to uphold its dignity, extend its usefulness, and assist in maintaining for it its present high position; but he

reminded the meeting that the well-being of such an association depended much less upon the exertions of a President, than on the cordial co-operation of the members at large; and that from nothing was so much benefit likely to be derived, as from an uninterrupted succession of well-digested papers. Hitherto the Society had been exceedingly well supported by a large attendance on the evenings of meetings, and there never had been any dearth of interesting written communications; he trusted during the ensuing twelve months, that the same zeal would be manifested in every department, as had hitherto been so convincingly displayed; and he felt quite sure that the discussions would continue to be carried on with the same urbanity, in the same spirit of generosity, and with the same gentlemanlike bearing that had hitherto always characterized the proceedings.

Dr. Marshall Hall exhibited some frogs rendered tetanic by strychnine, in illustration of his "note on the detection" of that poison.

Mr. Obrè showed specimens of strangulated intestine, one of which unoperated on had caused death by vomiting, without much injury having occurred to the bowel.

A paper was then read by Mr. I. L. Levison

ON DENTAL IRRITATION AS A PREDISPOSING CAUSE OF MANY ANOMALOUS KINDS OF NERVOUS AFFECTIONS.

The author commenced by observing that the organs of the mouth were not sufficiently investigated or regarded under the existence of certain disorders of the nervous system, not traceable to direct lesions of its centres; that it was therefore desirable to remind the Society of the intimate connexion of the teeth with the organs of vegetative and animal life. They had close relations with the mucous membranes, with the vascular system; the brain and external senses, with the spinal chord, and the muscles of the head and neck, through special nervous communications, which it was unnecessary for him to describe. Mr. Levison said it would also be useful to submit data furnished by the various affections incidental to the first dentition, before entering on the consideration of the anomalous forms of diseases resulting from dental irritation in the adult. During infancy, for instance, when the first teeth were developed, the following morbid conditions occurred:—

1. Diarrhœa from mucous irritation.
2. Fevers from derangements of the digestive organs with increased circulation.
3. Local inflammation of the mouth, producing thickening of the mucous surfaces with great vascularity, extending to the Eustachian tubes, and inducing temporary deafness, as in the case of deaf mutes rendered such by this temporary disturbing influence, and mistaken sometimes for a congenital defect of parts of the auditory apparatus.
4. Convulsions resulting from excitement of the cerebral and true spinal, or excito-motory, system.
5. Fits involving loss of consciousness, and lesions of the brain, with permanent impairment of the mental faculties.
6. Skin affections often translated to the brain by what is called metastasis, or such forms of disease as are induced, as it were, by an effort of nature to relieve the cerebral congestion.

The rationale of these different results was mainly to be found in the fact, that the weakest organs under such dental disorders were mostly, as a general rule, implicated. After these prefatory remarks, Mr. Levison proceeded with his communication, submitting by well-observed cases, that during the destruction of the teeth, whether from inflammation or accidents, that there often resulted serious derangements of the lungs, and of the alimentary canal. He then gave examples of the converse of these phenomena, proving that when the stomach and bowels were deranged, that the teeth may become sympathetically or secondarily affected. Mr. Levison then called attention to another class of phenomena, arising from pressure in the dental arches, over-stimulation, and inflammatory states of the system, which induced painful or neuralgic disorders in the neighbouring organs; paralysis in the upper eyelid, temporary deafness, disease of the antrum and of the facial nerves (tic douloureux), and lastly convulsive action of the muscles of the neck, palsy on one or both sides, and in some instances, all the voluntary muscles. This portion was illustrated by some very instructive cases. Finally, he commented on the same disturbing agency, producing, in the predisposed, hysteria, epilepsy, and periodic complaints, as hemi-crania. He entered into a physiological and pathological discrimination of these and other forms of disease connected with lesions of the brain and its membranes, and those associated with excrescences of the roots of the teeth, or exostosis, which he believed might be diagnosed before extraction, when this became absolutely necessary by the urgency of the complications; he concluded by making the following practical inferences or corollary:—

1. That a general knowledge of anatomy, physiology, and pathology, was essential to every one devoted to any special practice.
2. That special practice was essential to the apprehension of particular phenomena; and to distinguish whether the disturbance in any part was of local origin, or the result of reflex nervous action.

Lastly, that in forming a diagnosis of nervous and neuralgic affections, it was necessary to take into consideration all the conditions which might constitute a source of special disturbance; and when the brain and spinal chord appeared in a normal state, it was incumbent on all to search for the cause in some disease of the buccal cavity.

An interesting discussion ensued, in which Mr. Ure, Dr. Camps, Mr. Cleveland, Dr. Handfield Jones, Mr. Stewart, and Dr. Pollock took part.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

January 18, 1856.

Dr. Seaton, V.P., in the Chair.

Mr. Ellis read a case of

INVERSIO UTERI.

He prefaced his paper by alluding to the extreme importance of the accident, and by narrating the leading features which should guide us in our diagnosis, and to the fact that such cases generally proved fatal; in the present instance however the patient recovered and is doing well. The case, the subject of the paper, was a case, as distinguished from these more chronic cases; the result generally of internal tumours or polypus uteri. The patient was a laundress, and confined with her seventh child, of temperate habits and good health. In her previous confinements, there had been generally some delay with the after-birth, which peculiarity had been well known to the midwife who attended her; in the present instance a stranger attended, and used force to remove the placenta. Sudden symptoms of collapse occurred, violent hæmorrhage, pallor, delirium, and syncope. Mr. Ellis found her in such a condition, with a portion of the placenta unremoved. Upon examining her, he failed to find any tumour as usual in the abdomen, but the vagina was occupied with a firm mass, and the patient suffering the most severe expulsive pains. The symptoms were directly recognized as indicative of inversio uteri, and efforts were made to restore the organ. It was deemed expedient from the amount of blood which the patient had already lost to return the uterus with the adhering portions of the placenta attached to it; this was done, and the patient experienced a complete remission of all her symptoms, and from that time gradually recovered. At the present time she is quite well. The causes of inversio uteri are generally mechanical, though occasionally the accident occurs spontaneously; the most common cause being undue traction of the funis, especially if there be any unusual attachment of the placenta. As this cause would be more apt to operate if the placenta were placed at the fundus of the uterus, the author supposed the lateral attachment of that organ, under most circumstances, were a wise provision against the occurrence of the accident. Out of 600 cases of pregnancy Naegele had detected the placenta to have been attached to the right side of the uterus 141 times, to the left 238, and to the fundus 7. He then made some practical remarks respecting the mechanism of the recurrence of the accident, having reference chiefly to the arrangement of the muscular fibres of the uterus, and concluded by alluding to those cases which had been termed chronic. These generally occurred in conjunction with tumours, and were dependent on them; the conditions being a roomy pelvis and uterine relaxation.

Some discussion followed with respect to the reason of the situation of the placenta, Dr. Cahill maintaining that the cause of the lateral attachment was, that the ovum dropped

through the lateral opening of the Fallopian tubes. The question as to whether inversio uteri occurred in connexion with inertia or a contracted state of the womb, excited much interesting debate.

The Society then adjourned.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

JANUARY 10, 1856.

(Communicated by the Hon. Secretary.)

(Concluded from page 152.)

The Chair was taken by Dr. Hall, the principal Medical officer of the British Army in the Crimea: there were eighteen Medical officers present. The proceedings of the previous meeting having been read by the Secretary, Dr. Hall then addressed the meeting on the pleasure it gave him to meet so many present, and anxious for the establishment of such a Society, which would tend to advance Medical knowledge. But his impression was, that it would be more a general than a divisional Society, and he fully trusted that all the Divisions would ultimately join. He then referred to the present Pathological Department, now being established, and thought it might well be amalgamated with this Society. He also mentioned that Dr. Smith had called for Reports on the Crimean Diseases, and had promised immediate promotion to whoever should produce the best essay or treatise on the subject; and that a circular was going round the Medical officers of the Army for their information and guidance. He also stated that he would endeavour to procure a hut for our meetings, as the object of the Society was one that deserved every encouragement.

Dr. Williams mentioned that there were many difficulties in making the Society as general as Dr. Hall seemed to wish, owing to impediments arising from want of accommodation, distance, and climate.

A conversation then ensued, and it appeared to be the general feeling of the meeting, as we were only feeling our way, that it would be better for the other Divisions, in the first instance, to form their own societies, and that, if opportunity and circumstances permitted, we might afterwards amalgamate together. It was also considered that the union of the Pathological, with the other subjects to be discussed, would open too wide a field, and that it would be much better to keep it separate, and establish ours as a distinct Society. All highly approved of Dr. Smith's efforts to have a work produced worthy of the Military Medical Profession, and hoped that he would not be disappointed by such essays as might be sent in.

Rules were then made to facilitate the admission of Honorary Members, and the admission of other Medical officers to our meetings. Then three French, and three Sardinian Medical officers were elected Honorary Members, of whom Dr. Scrive is the *chef* of the French Medical Department, and Dr. Nicholi of the Sardinians.

(To be concluded in our next.)

EXTRACTS FROM A PRIVATE LETTER FROM SCUTARI.

"My great effort has been to see as much as I could of the French and other Hospitals, and to promote the *entente cordiale* amongst the various *confrères*. I even hope to succeed in establishing meetings of the Medical men of all nations, who may afterwards form a permanent Medical Society in Constantinople. I have also collected as much information as I could about the organization of the French Medical Service, which, on the whole, is excellent. At this moment I am busy with putting together a Report on the subject, which is intended to set forth the many advantages they have over us, at the same time pointing out what I think defective in their system; I hope thus to contribute my mite towards a reform so much needed in our service. I am far from thinking the French system perfect; but there are many points we might with advantage adopt from them. One of these is the inspection of all the Hospitals, at home and abroad, which is held yearly by one of the Inspectors-General, of whom there are eight, one of them a Pharmacien-Inspecteur. They undertake the inspection by rotation: last year M. Lévi was out here, this year M. Baudens has come; he has finished his inspection in the Crimea and is now busy here. Baudens, particularly known by his Treatise on Gunshot-wounds, when *Médecin-en-chef* in Algiers, is an operator of great name. A few days ago he came over to see our Hospitals, and expressed himself much pleased with them. We made an appointment to go next day, and witness his inspecting the *Université*, an Hospital opened about five months ago, with accommodation for 1200, at present holding 600, patients. The *Médecin-en-chef* is Dr. Lüsteman, himself a superior Surgeon and operator. The Hospital is like most of those of Constantinople, full of interesting Surgical cases. We very wisely operate, and keep our cases up at the front; the French wishing to be always *mobile*, only operate on the most necessary cases in the Crimea; the others are bundled off to Constantinople. This is a bad plan, and undoubtedly one of the causes of the great deal of Hospital-gangrene always found among them. M. Baudens went round the entire Hospital, and in every ward was shown the cases by the Medical Officer in charge, whom he questioned about the operations performed and ulterior treatment; he also took notes of the state of the wards, beds, ventilation, etc. Those orderlies who had distinguished themselves by their attention to the sick were pointed out to him; one of them had twice saved the life of a patient by compressing the artery till the Medical man came, when hæmorrhage set in in the night. After having inspected the pharmacy, kitchen, and laundry, he retired to the board-room, where he made a few remarks on the state of the Hospital in general; and the junior Medical Officers (the aides-major) having been placed before him, he asked a few questions on Surgery of each of them, and afterwards made the *Médecin-en-chef* ask them some questions on Medical subjects, the dispenser being in the same way examined by the Pharmacien of the Hospital. He showed some new instruments lately sent out by Government, and warmly recommended the use of fine prepared cotton-wool lately introduced for dressing wounds. We then adjourned to the dissecting-room, where each of the youngsters had an operation to perform on the corpse; after commenting on which, M. Baudens wound up by showing off some of his own favourite operations, viz.:—the resection of the head of the humerus and of the tibia. The whole inspection may have lasted about five or six hours, M. Baudens taking notes as he went along, and particularly noting down all about the individuals employed in the Hospitals. Those that have distinguished themselves he reports, and they will receive some distinction—promotion or pecuniary reward. Those Medical men who work well are sure, in time, to receive the Cross of the Legion of Honour, to which you know that a small pension (250 francs) is attached. All the Hospitals (14 in number) are thus inspected in turn.

"Now, I am perfectly aware, that the examination thus made is not a sure test of a man's merit, nor do I believe that favouritism can be entirely excluded in the distinctions thus conferred; but, for all that, it is clear that the fact of being thus constantly noticed, and liable to be called upon, must keep the young men alive, while the expected reward entertains emulation. I am convinced that if with us a little more attention were paid to individual merit and exertions, many a young man who, if he shows any taste for scientific acquirements, is now snubbed by the heads of the Service, who have long since been obliged to abandon these pursuits, many such a young man would become an ornament to the Profession, instead of now being submerged by the useless routine drudgery of our present Military Medical system."

METROPOLIS LOCAL MANAGEMENT.

ELECTION OF MEDICAL OFFICERS.

At a meeting of the Local Board of Works for the Hackney district, we are glad to find that the principle of purity of election seems to have been fully carried out, the successful candidate being an utter stranger to the Boad. The following is a list of the candidates:—Barnard C. Beale, Edward Bentley, M.D., H. Goodeve Bowra, T. E. Browne, Edgar Cockell, John Denny, G. F. Giles, James Handy, Henry Hart, G. H. T. Jarvis, Joseph Kenny, Charles Kidd, W. G. King, Geo. C. Millar, Samuel Morgan, John Tripe, M.D., John

Vinall, Robert Walker, Hermann Weber, M.D., R. B. Welch, M. W. Wilson, W. H. Wright.

This list having been reduced by show of hands to six. After eight "shows," Dr. Tripe was declared to be elected.

Mr. Kitchener said he thought the Board had reason to feel proud of the appointment they had just made. Dr. Tripe was only known to him by his testimonials; but these showed that he was a man supereminently qualified for the appointment they had conferred upon him; and he felt convinced that he would discharge his duties to the satisfaction of the Board and the public, and with great distinction to himself.

Dr. Tripe having been introduced to the Meeting,

The Chairman announced to him the result of the votes, and congratulated him on his election. The office was one of considerable responsibility; but they felt confident that he would assiduously and conscientiously devote his talents to its duties, and that his appointment would be a credit to the Board and a blessing to the district.

Dr. Tripe said the decision of the Board afforded him so much pleasure that he was scarcely able to express his feelings. He was an utter stranger to the Board, and was therefore elected simply on the ground of his public testimonials. He assured them that the duties devolving on him would be honestly and conscientiously discharged. He appealed to their support in the performance of those duties, since without that support he could do nothing. As a stranger, he could only have local weight and influence through the support they afforded him. He was aware that the duties involved great responsibility; but, in undertaking them, he assured the Board, as a gentleman, as a professional man, and as a man, that he would neither use his position to oppress the poor, nor to annoy or worry the rich. He would devote his time, and the abilities which it had pleased Divine Providence to bestow on him, to the service of the district; if necessary, he would devote his whole time to the work. It was not from the matter of pounds, shillings, and pence, that he felt gratified by his election. He had been all his life working for a standing in his Profession, and his ambition was to pursue those inquiries in preventive Medical science which formed the very foundation of Medical and of curative means.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea in forwarding his Return of Sick for the week ending the 19th ultimo, states—

That the sanitary condition of the Army continues very satisfactory. A slight decrease in both the admissions and deaths has taken place in the course of the week, but of so trifling a nature as will be seen by the following abstract:—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	161	9	162	9
Head affections	7	1	9	2
Pulmonic	199	6	257	6
Diarrhœa	95	2	104	4
Cholera	1	0	2	0
Dysentery	20	0	20	2
Rheumatism	60	1	56	0
Frost bites	29	1	21	1
Wounds and Injuries	38	0	48	1
Ophthalmia	28	0	31	0
Other Diseases	426	5	406	2
	1064	25	1116	27

Febrile complaints continue the same as last week, but there has been a decrease of both pulmonic affections and bowel complaints, notwithstanding the variable nature of the weather we have had in the course of the week; and cholera may be said to have disappeared, as only one case was admitted, and two remained under treatment at the close of the week.

The Land Transport has a number of men sick, including those who are absent at Scutari, but the absolute sick in camp of the European portion of the corps, with the soldiers attached to it, does not much exceed that of the rest of the Army, as will be seen by the ratios given below; but for some time past the mortality has been considerably higher than in any part of the Army; nor is this to be wondered at when the feeble, inefficient nature of the material of which the corps is composed is taken into consideration.

Last week some discrepancy was occasioned by including the natives in the strength, which lowered the averages. This week they have been excluded, and the strength of the corps as given, including soldiers attached to it, artificers and all Europeans entitled to Medical attendance, amounts to 6835. The admissions have been 149, deaths 9, and remaining under treatment 397, which would give a ratio of admissions to strength of . . . . . 2·18 per cent.

Of deaths to strength	0·13	,,
Of sick to well	5·51	,,
The ratios in the Army, exclusive of the Land Transport, are, admissions to strength	2·11	,,
Deaths to strength	0·03	,,
Sick to well	5·40	,,

The Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding his Report of Sick, for the week ending the 26th ult., states:—

That it exhibits a continuance of the same good health which the Army has enjoyed for some weeks past, and there has been a decrease of one-fourth in the mortality, which only amounts to 18 this week, including 5 deaths that took place in the Land Transport Corps. Even the Land Transport Corps, as noticed in my report the week before last, has improved in general health, and the mortality has fallen one-half. The number of sick in Hospital is still great, but the diseases are of a milder character, as evinced by the diminished mortality; and there is reason to hope that, as the men get better organized, the sanitary condition will still improve. That the sickness of the corps is owing to the raw, weakly boys of which it is in a great measure composed, and not to the extent and nature of the duty they have to perform, is proved by the health of the men of the line who are attached to it, as it appears that only 14 out of a strength of 1279 were sick at the end of this week; whereas 359, out of a force of 5467 of the corps itself, were in Hospital.

The Royal Artillery, Light, Highland, and Third Divisions have enjoyed remarkably good health this week. No casualty occurred in the first three, and in the Third Division only one death took place—a case of inflammation of the membranes of the brain, without any assignable cause, terminating rapidly in the formation of pus. It is remarkable that this man's brother died of a similar complaint some time before.

In the First Division, 3 deaths took place—1 from phthisis, 1 from pneumonia, and 1 from scrofulous disease of the joints.

In the Second Division, 2 deaths took place—1 from protracted common continued fever, in a man of broken constitution; and the other a case of pneumonia, in a weakly, dissipated recruit, whose chest, on *post-mortem* examination, exhibited extensive traces of previous disease.

This fatal case of fever in the Second Division is the only one which occurred among the troops. The other three that appear in the return took place in the Land Transport Corps.

In the Fourth Division, though there has been no marked increase of sickness, the mortality has been greater than in any other division, and equals that of the Land Transport Corps. One man died of phthisis, two of pneumonia, one of diarrhœa, and one of cholera.

The weather has been open and mild during the week, and much rain has fallen. Chest complaints have continued to be the most prevalent class of diseases, though the change in the weather would have led one to expect febrile affections.

The wants of the men are remarkably well provided for in every respect, and their duty is very light, so that there is no reason why they should not enjoy good health.

The following abstract shows the admissions and deaths under the leading heads of disease:—

	This Week. Admitted.	Died.	Last Week. Admitted.	Died.
Fevers	179	4	161	9
Head affections	15	1	7	1
Chest	218	7	199	6
Diarrhœa	104	2	95	2
Cholera	4	1	1	0
Dysentery	22	1	20	0
Rheumatism	50	1	60	1
Frost bite	3	0	29	1
Wounds and Injuries	42	0	38	0
Ophthalmia	34	0	28	0
Other diseases	434	0	426	5
	1115	18	1064	25

The ratio of admissions to strength has been 2·07 per cent.
Deaths to strength . . . . . 0·03 ,,
Sick to well . . . . . 4·55 ,,
The same week last year the deaths were 388, out of a strength of 29,695.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Friday, Feb. 8.

THE MEDICAL PROFESSION.

Mr. Headlam moved for leave to bring in a bill to amend the laws relating to the Medical Profession. The object of the bill was to provide a suitable education for all persons seeking to practise the medical profession, for a reciprocity of practice; so that a person should be at liberty to practise either in England, Scotland, or Ireland—and to provide a complete register of properly-qualified practitioners. There was a strong feeling throughout the country as to the necessity of some such measure as the one he now proposed. The Royal College of Physicians gave the bill their support, and said its provisions would harmonize with the new charter they sought to obtain. The Royal College of Physicians in Edinburgh also expressed their approval of the bill; and the Royal College of Physicians in Ireland were equally strong in its favour. The College of Surgeons in London was not so cordially in favour of the bill, considering that the registry as proposed was necessary, but regarded any further enactment as to enforcing penalties altogether unnecessary. He proposed to establish a medical council, consisting of one physician and one surgeon from the Colleges of Physicians and Surgeons in England, Scotland, and Ireland, who should have control over the entire kingdom. Having gone into some minor details of the bill, he said he hoped the House would give their earnest support to a measure which had for its object the placing on a solid basis the medical profession of this country—a profession to which they were all so much and so deeply indebted.

Mr. J. Brady, in seconding the motion, deplored the thin attendance which the House then presented, when a measure of such vast importance was brought forward. He contended that this was not a question in which the medical profession were alone interested, but was a great national question, and as such ought to be treated. It was a subject that ought to be taken up by her Majesty's Government, who ought to raise up the profession to such a position as its importance required. The one great idea which occupied the public mind was that medical reform was solely obstructed through the want of unity among medical men. This presumed cause he was prepared to assert to be without foundation, inasmuch as medical men were almost united to a man for having a large and comprehensive measure of reform; at the same time he must confess that there was considerable difference of opinion in the medical corporate bodies as to the proper mode of treating the question, but wished to be clearly understood, when speaking of the gentlemen that preside over those institutions, that personally he had the highest respect for them, and looked upon them as the brightest ornaments of the profession—men who devoted their lives to the study and advancement of science and to the alleviation of the sufferings of their fellow-creatures. He would give the measure submitted by the hon. gentleman his cordial support, and he hoped that another session would not pass over without the question being settled for ever.

Lord Palmerston said he should have great pleasure in voting for the motion of the hon. gentleman. He was sure that the House must have listened with pleasure to the statement made by the hon. gentleman, and he (Lord Palmerston) gave him great credit for it; and he should give him still more if he succeeded in passing the measure, and, as the hon. member for Leitrim had said, he trusted the question would be settled for ever. His hon. and learned friend had not exaggerated the importance of the subject or the difficulties with which he had to contend. He (Lord Palmerston) could speak on this measure with some experience, for when he was at the Home-office he endeavoured to do what the hon. and learned member was now attempting, and, if he succeeded, he would be entitled to the thanks of the country. He wished him every success, and he could say as much on the part of his colleagues, who were anxious to render him all the assistance in their power.

Leave was then given to bring in the bill, which was afterwards read a first time.

Tuesday, February 12.

NAVAL UNIFORM.

Mr. Brady asked the First Lord of the Admiralty if he intended altering the regulations in Her Majesty's Navy by which the following officers are at present not allowed to have the distinguishing mark of gold lace on the cuffs of their undress coats, thereby reducing them to a level with the inferior grades of officers, viz.:—Inspectors and deputy-inspectors of hospitals, staff-surgeons, surgeons and assistant-surgeons, paymasters and assistant-paymasters.

Sir C. Wood was not aware until that moment whether the officers mentioned had or had not the gold lace on their cuffs. (Laughter.) The whole question of naval uniform was now under the consideration of the Admiralty.

ADULTERATING FOOD, ETC.

On the motion of Mr. Scholefield, the appointment of a Select Committee was ordered, to investigate the adulterations of food, drinks, and drugs.

MEDICAL NEWS.

Anniversary Dinner of the Society for the Relief of the Widows and Orphans of Medical Men.—The sixty-eighth Anniversary Dinner of this excellent charity will be held at the Freemasons' Tavern on Saturday next, February 23, Sir Benjamin Brodie, Bart., Vice-President, in the Chair. We have so often advocated the claims which this Society possesses to the support of our Professional brethren, and those claims have been so generally recognized, that we need do little more on the present occasion than to recommend all who have not yet joined the Society to do so forthwith. With the power of making so easy a provision for his widow and infant family, no Medical man ought to leave his relatives to be a burden to the public. We trust that on the forthcoming anniversary a numerous meeting will assemble, and that many new members will be added to the Association.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to practise, on Thursday, February 7, 1856:—

Banks, Philip Humbley, Victoria Docks-road, Plaistow.
Ellison, Samuel Kitching, London.
Holland, Henry Frederick, Godalming, Surrey.
Robinson, George Strickland, Rickmansworth, Herts.

APPOINTMENTS.

In our notice last week of the election of Mr. Henry Jones, it should have been as Medical Officer of St. Ann's, and not of St. James, Westminster.

The Duke of Cambridge has appointed Thomas Richardson, Esq., Surgeon-Major of the Scots Fusilier Guards, to be Surgeon to His Royal Highness.

Durham County Hospital.—Mr. William Stoker was unanimously elected Surgeon to the Durham County Hospital, February 7, 1856, on the retirement of William Green, Esq., after 43 years' zealous attention to the interests of the Hospital.

Liverpool Blue Coat Hospital.—On the 12th instant, A. B. Steele, Esq., junior, was appointed Honorary Surgeon to the Liverpool Blue Coat Hospital.

Dr. J. B. Sanderson has been elected Medical Officer of Health to the Paddington District.

DEATHS.

Fulham.—February 7, at Ramsgate, Mr. J. Fulham, Medical Student, aged 22.

Gray.—David Gray, Esq., Professor of Natural Philosophy, Marischal College, February 10, at Aberdeen. Professor Gray was highly respected in the city, not only for his ability as a man of science, but also for his generous catholicity of heart, and readiness to aid in every movement having for its aim the welfare of the people at large. While he was beloved by his college students, he was not less esteemed by a large number of the youth of Aberdeen in a lower station of life, for the willing manner he gave his services as teacher of one of the evening classes at the Mechanics' Institution—the poorest pupil in which he taught as cheerfully, and recognized as kindly, as the most fortunate of his scholars proper. Professor Gray, who had only attained his 46th year, was a native of Kirkcaldy, and had held his appointment in Marischal College for about eleven years. His disease was a combination of gastric fever and diarrhœa, of which he had been ailing for several months.

Hope.—February 8, murdered by a convict, C. W. Hope, Esq., Assistant-Surgeon of the convict department, Portsmouth. The murderer has been committed to take his trial.

Lockhead.—February 7, at Garscube-place, Glasgow, William Lockhead, Esq., M.D.

BEQUESTS.

Mrs. Jane Herbert, of Queen's Square, Bloomsbury, has bequeathed £50 to the Free Hospital; and Miss Mary Crank, has bequeathed £50 each, to the Liverpool Infirmary, and Liverpool Dispensaries.

Meeting of the Medical Officers of the Rotherham Union.—At a meeting held on January 30, 1856, the following resolutions were passed:—1. That this meeting being duly impressed with the necessity of an increased remuneration for the services of the Medical Officers, and of an examination of the districts generally, as recommended by the Committee of the House of Commons in 1854, observes with satisfaction the present movement for the purpose of securing the objects. 2. That the Medical Officers of the Rotherham Union, enter into an association for the purpose of giving support to this movement. 3. That for the efficient carrying out of the foregoing resolutions it is expedient that a petition be presented to the House of Commons as early as possible in the forthcoming session, and that the county members be earnestly requested to support its prayer. 4. That Dr. Hardwicke be appointed local secretary, with power to receive a small subscription to defray the incidental expenses, and that a subscription of 5s. be at once entered into, to be repeated quarterly if requisite for the prosecution of the object. 5. That in consequence of several letters received from Medical Officers resident at a distance of inability to attend this meeting, the secretary be requested to forward the foregoing resolutions for their approval. 6. That the thanks of this meeting be given to R. Griffin, Esq., for his exertions in behalf of his fellow Officers. 7. That a copy of these resolutions be sent to the Medical Journals. 8. That the thanks of the meeting be given to the Chairman.—Signed, Frederick William Flower, Chairman.

Meeting of the Medical Officers of the Greenwich Union.—At a meeting of the Medical Officers of the Greenwich Union, held on January 31, the following resolutions were unanimously adopted:—1. That the agitation commenced by Mr. Griffin, for the amelioration of the condition of the Union Medical Officers, should be aided. 2. That Mr. Cogan, of the east district, be the local secretary of this Union. 3. That a subscription be entered into, of such sums, as from time to time may be deemed expedient. 4. That the points most to be urged, are, the increase of salary, and removal from jurisdictions of the Poor-law Board and Guardians, and to be placed under a Medical Inspector.

Dr. Paris had an interview, on Tuesday, with Sir George Grey, at the Home Office, to present his Report.

A Nurse.—A peasant woman of Normandy has been installed at the Tuileries.

Dr. Sandwith, the sole sojourner in Kars who has yet arrived in England, was entertained on Friday last by his fellow-townsmen at Hull, to a public breakfast at the Station Hotel. The Mayor occupied the Chair, and there was present a very large number both of ladies and gentlemen.

The Will of the late W. F. Chambers, M.D., of Southampton, has been proved under £35,000.

Adulteration of Flour.—On Monday, at Wakefield, a maltster and wholesale flour-dealer (named Ginn), was charged with having in his possession bags of flour adulterated with alum; 84 sacks had been seized: 57 were found to contain alum, and 17 of these contained so large a quantity as to be very prejudicial to health. The 17 bags were forfeited, and a penalty of £10 inflicted. The flour was condemned to be sold for cattle, one-half of the proceeds to be applied to the Clayton Hospital, and Wakefield Dispensary.

The Hospital at Renkioi.—The Correspondent of the *Times* says, one point of pre-eminent advantage respecting this Hospital is now established: fevers and other contagious diseases do not spread from bed to bed. It is doubtful if a single instance of the kind has occurred since the opening of the first ward; nor have any of the attendants, men or women, suffered in health. When this is contrasted with what is known to have happened in other places we must, in common justice, acknowledge that in the appointment of the present chief of the establishment, Dr. Parkes (by whom all these matters are directed), the Government has exercised a very sound judgment.

St. Pancras Workhouse.—At a meeting of the representative Vestry of St. Pancras, Mr. Streeten presented a Report of a Committee on the Government of the Poor and the State of the Workhouse. The Report states, that the house is ill-ventilated and overcrowded, and quite inadequate in many respects to meet the wants of the parish. That in the casual wards there is a want of decency, many of the males sleeping in a state of nudity, two in a bed; and that too frequently the profligate and abandoned characters are placed in the same ward with respectable married women; that the indiscriminate admission of tramps into the wards has been a prolific source of disease and moral contamination, to remedy which the Report recommends the introduction of a stone-yard as a labour test. After pointing out the crowded state of the Children's Infirmary, the Committee recommend that the young should be entirely removed from the Workhouse, and proceeds to point out the evil of employing aged and intemperate paupers as nurses. The insane ward was described as being underground and much crowded, and that in one ward, containing only 2800 cubic feet, there were nine patients suffering from syphilis. Mr. Spooner said that the Workhouse management was really in a lamentable state. Only the previous night a man was taken to the Workhouse in an insensible state—that man was his servant. When called to him he found him stripped of his garments, lying in a fit of alcoholic apoplexy. The Surgeon, Mr. Waldegrave, was called, and he ordered mustard to be applied to the extremities; instead of which, the men who had charge of the unfortunate man in a foul ward, had drenched him with cold water; and, but for the sedulous attention of Mr. Waldegrave, there could be no doubt that this treatment would have caused the poor man's death. When hot-water applications were ordered, it was found that there was not a drop of hot water in the house; and he (Mr. Spooner) and the Doctor were only enabled to restore anything like animation by continued friction. The man was still insensible, and in a very dangerous state. It was to be hoped that now, at least, some step would be taken to remedy such a disgraceful state of things. Mr. W. D. Cooper pointed out many of the evils which had been looked into by the Board of Directors, who had recommended the late Vestry to take steps for remedying the same, but they declined to do so on the score of expense. A resolution to print the Report was carried, and it will be again brought up for consideration.

Important Investigation.—There has recently been much excitement hereabouts, in consequence of a succession on deaths of paupers in the Westbourne Union, who had been under the treatment of a Medical officer appointed in Septem-

ber last, and previously a stranger to the neighbourhood. The first case which produced any shock was that of Alfred Austin, who was travelling with dancing dogs on the 23rd of October, and stopped by severe pains in the abdomen, within two or three miles of the Workhouse about noon that day. He was taken to the Workhouse about five, seen by the Medical officer between six and seven, ordered to take a spoonful of colourless and tasteless mixture every two hours, had it regularly administered, was dead, without any other notice or direction from the Medical officer, by seven the next morning, and was entered in his report as having died from enteritis and *probable degenerescence*, the signification of which last word has been sought in vain. The second case was George Harris, quite a young man, who had been under treatment for some time for what the Medical officer deemed an affection of the spine, but which other gentlemen considered disease of the kidneys, was in a state of costiveness on the 27th of October, received that day from the Medical officer, at his surgery, two powders, being, as it appears, a change from the medicine he had had previously; he took, as directed, one that night, and the other the next morning; took his breakfast an hour afterwards, and was seized in about two hours with severe diarrhœa and vomiting, which, with a short intermission (caused apparently by a powder administered by another practitioner, whom the wife had implored for some such aid) continued till 3·30 a.m. on the 30th, was dead by that time, and was officially reported by the Medical officer to have died of neglected symptoms of English cholera, though suffering, as stated above, from costiveness when the powders were given, of which he told his sister before he took either that he had informed the Medical officer before he got them. The third case was George Poate, taken ill on the 5th of November, supplied by the Medical officer (without seeing him) with eight powders on the morning of the 6th; visited by him on the middle of that day, supplied with a colourless and tasteless mixture about two o'clock; visited next day about twelve, supplied at two with two purgative pills, kept supplied with the mixture, not visited at all on the 7th, though living very near the Medical officer, and then the only union visits he paid that day were paid in Poate's immediate vicinity; visited again about four on the 8th, being an interval of fifty-two hours, and still supplied with the mixture; visited again on Saturday at five, but no more medicine ordered, there being, as the officer represented, a good deal of depression about him, and he not being likely to want much more, and dead at seven next morning, without a bit of treatment, except what has been mentioned, or any percussion, or auscultation, or other observation of a search for physical signs, though the cause of death was stated in the medical return to be pleuritis, and the Medical officer afterwards admitted on oath that inflammation of the pericardium was also probable from the first. Other cases also had attracted some attention, and the Guardians having thought it necessary to make some inquiries of the Medical officer, he avowed, after a time, that he was practising as a homœopathist, though elected without any suspicion of his having turned his back upon the persons whose testimonials procured him the appointment. The Guardians thereupon requested the Poor Law Board to require him to resign, on the ground of the concealment up to that time of his abandonment of the orthodox faith, in reliance on which he had been elected: and requested an investigation on oath into the three cases we have specified, which was commenced on Saturday, the 19th ult., and concluded on Friday, the 25th. At the close of that day, the Guardians resolved to suspend the officer till the Poor Law Board had decided; and their decision has since been given against his continuance in office. — *Hampshire Advertiser.*

CARBUNCLE.—Several cases are recorded as occurring last week:—in Cavendish-square, on February 3, a butler, aged 46 years, "anthrax." In the same sub-district, on February 4, a naturalist, aged 39 years, "carbuncle on the back, followed by large abscesses in various parts of the body (about 6 weeks)." At the Union-house, West-street, on February 5, the wife of a farrier, aged 55 years, "carbuncular, boils, and bed sores." On February 16, a baker, aged 48 years, "carbuncle, convulsions."

A QUACK.—At Crossmolina Petty Sessions, John Corcoran, a quack "doctor," was sentenced to be imprisoned one month, and pay 6s. 6d. costs, for unlawfully inoculating children for the small-pox.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, February 9, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, February 9, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 44·0						° 41·0
ALL CAUSES	1151	480	189	206	224	42	1156·3
SPECIFIED CAUSES	1141	480	189	206	224	42	1151·0
DISEASES:—							
1. Zymotic Class	225	145	34	24	20	2	235·7
2. Dropsy, Cancer, and others of uncertain seat	40	5	6	17	10	2	47·1
3. Tubercular Class	184	61	79	37	6	1	190·0
4. Of Brain, Nerves, etc. ..	145	60	11	31	38	5	132·5
5. Of Heart, etc.	48	5	10	18	15	..	44·1
6. Of Respiratory Organs ..	253	103	19	43	73	15	248·0
7. Of Digestive Organs ..	59	25	8	17	9	..	65·1
8. Of Kidneys, etc.	13	2	6	3	2	..	11·9
9. Of Uterus; viz. — Puerperal Disease, etc. ..	8	..	7	1	..	..	8·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	11	6	2	2	1	..	8·5
11. Of Skin, etc.	5	..	1	3	1	..	2·1
12. Malformations	2	2	..	..	..	..	4·6
13. Debility from Premature Birth, etc.	35	33	..	2	..	..	31·2
14. Atrophy	28	13	1	1	13	..	25·0
15. Age	50	..	..	..	33	17	57·5
16 Sudden	5	3	..	2	..	..	9·8
17. Violence, Privation, etc...	30	17	5	5	3	..	29·7
CAUSES NOT SPECIFIED.. ..	10	..	..	..	..	..	5 3

BOOKS RECEIVED.

A Manual of Zoology by M. Milne Edwards. Translated by Dr. Knox London: Renshaw. 1856.

On Hydatids of the Uterus. By Dr. W. H. Ashley. London: Baillière. 1856.

Tenth Annual Report of the Devon Lunatic Asylum. Exeter: W. Norton.

Yearsley on the Throat. London: Churchill. 1856.

Handbook of the Movement Cure. By Dr. Roth. London: Groombridge and Sons, Paternoster-row. 1856.

Madeira und seine Bedeutung als Heilungsort. Von Karl Mittermaier. Heidelberg. 1855.

Nashville Journal of Medicine and Surgery. January. 1856.

A Narrative of the Siege of Kars. By Humphry Sandwith, M.D. London: Murray. 1856.

The Dublin Quarterly Journal of Medical Science. February. 1856.

TO CORRESPONDENTS.

Dr. Kidd.—We have received an abstract of the paper, but as the paper itself has already appeared in the *Dublin Quarterly Journal of Medical Science*, we think it unnecessary to print it.

In consequence of the length of the Advertisement issued by the Medical Benevolent College, we have been compelled to omit many articles of news and other important matters.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I am desirous to know in what capacity a lady, one who was last winter on the staff of Miss Nightingale, either in the Crimea or Turkey, and who has made known her willingness to give her assistance, should be admitted into a County Hospital, whether as a nurse, or as a superintendent nurse, or as a visitor, or in what other situation.

The Rules at present do not acknowledge the services of any such valuable individual. A special meeting of the Governors will take place on Monday next to take the matter into consideration, and any information for their guidance, which you may be pleased to give in your next number, would be very acceptable, as the subject is attended with much difficulty; besides, it is highly desirable that some reliable and definite steps should be taken in the first instance. I am, etc. M. D.

[The lady's services would, no doubt, be extremely valuable as superintendent nurse, in which capacity she would be exempted from ordinary drudgery, and might exercise due control over the subordinates.—ED. *M. T. & G.*]

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A month has now elapsed since I called upon Dr. John Hastings, in your pages, on behalf of a rural Medical Society, to "explain" certain astounding statements made by him in his now suppressed work on Phthisis and Hooping Cough. To this Dr. John Hastings has ventured no reply. I am, therefore, requested, finally to demand from Dr. John Hastings, he being Senior Physician to the Margaret-street Dispensary for Consumption, etc., whether he will come forward and stand by his extraordinary statements, (among others, that he administered a grain of strychnine daily to a child for two months!) or confess by his taciturnity that they cannot be practically verified. I am, etc. M.D.

Dr. Hunt.—The error connected with the arrangement of the cases has been corrected.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I see by the advertising columns of your Journal, that the Council of the Royal Medical Benevolent College have determined upon again exceptionally altering the qualification of Life Governor from £10 10s. to £5 5s. This is the third time. I will not enter into the question of the general expediency of such a proceeding. I will admit that while the building was progressing, and it was necessary to strain every nerve to obtain money, some latitude was allowable; but, I contend, Sir, that the College having been inaugurated, and having acquired a firm basis, such exceptional legislation on the part of the Council unfairly affects the interests of existing Life Governors, and necessarily diminishes that confidence in the governing body and the laws which I and all well-wishers to the Institution must desire to feel. I am, etc.

February 9, 1856. A TEN-GUINEA LIFE GOVERNOR.

It is too late to alter the resolution now, but I would desire to enter a protest against its being ever repeated without the consent of the Governors at large.

The following articles are in type and will appear as early as possible: On Disease of the Os and Cervix Uteri, by Dr. Rigby; On Colour Blindness by Dr. Bronner; On Weak Inflammations, by Mr. Barwell; On Laceration of the Perinæum, by Dr. Snow Beck; On Renal Calculi, by Mr. Adams.

Dr. Todd's Clinical Lecture on Cardiac Disease is unavoidably postponed.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Permit me to inform your Correspondent, "A District Medical Officer, Bishops-Stortford," that the gentleman whom he names, Mr. Fowell, is L.S.A., September 30, 1847, and M.R.C.S., June 29, 1855. He means probably Mr. Powell, the Union Surgeon, who is only a Licentiate of the Dublin Hall. I am, etc.

THE COMPILER OF THE "ENGLISH MEDICAL DIRECTORY."

14, John-street, Adelphi, Feb. 11, 1856.

Inquirer.—Some of the acoustic instruments made by Mr. Rein are of service.

Correspondent writing from Edinburgh, while giving the Edinburgh deputation of graduates credit for zeal and good intentions, deprecates their conduct in confining their petition to the subjects of their own University. He thinks that they should have included all the Scottish Universities in their plan, by which means they would have secured the sympathy and co-operation of the whole Profession in Scotland.

Mr. Francis Peppercorne.—We have received the article extracted from the *Naval and Military Gazette*, and shall not fail to advert to the important subject of which it treats.

A.—We have received the quackish handbill, but we think that a notice of such trash would only have the effect of giving to its authors the notoriety which they desire.

Wexford.—The American paper, containing the account of the trial for poisoning, has reached us, and will receive due attention.

Anti-homœopathy.—The Editorial department of this journal is not deficient in chemical knowledge. Our statement that "Silica is not soluble in water under ordinary circumstances" is perfectly correct. The extraordinary circumstances under which silica *is* soluble in water, are when it is presented to that fluid when in the nascent state, and when it is mixed with an excess of potash. Even if these methods of dissolving silica were resorted to by the Homœopathists, the solution would have no sensible properties upon the human system. No amount of trituration can render silica soluble in water.

A Vestryman.—As some remarks made in this journal have been construed into an expression of feeling against the claims of Dr. Dundas Thomson and Dr. Barnes, for the appointment of Officers of Health in certain of the Metropolitan Districts, we may take occasion to observe that we were actuated only by public motives in the sentiments which we expressed. No candidates can have higher claims than either of these gentlemen to such an office, and so far as they are personally concerned, we wish them success.

ERRATA.—The following errata require correction in the report of Mr. Cock's Pharyngotomy case last week, page 136, first column, thirty-fifth line, "joint: on the left side of which the platysma," read "*joint on the left side. The platysma, &c.*" Page 136, first column, eighth line from bottom, "to the *left*," read, "to the *right*." Page 136, first column, fifth line from bottom, "by the inferior *course* of thyroid," read, "by the inferior *cornu* of thyroid." Page 136, second column, third line from bottom, "Inferior *course* of thyroid," read, "Inferior *cornu* of thyroid."

COMMUNICATIONS have been received from—

Dr. ANDREW SMITH; Dr. S. W. J. MERRIMAN; Mr. W. THORNTON, Crimea; Mr. R. GRIMBLY; A; T. R. J.; Mr. WILLIAM STOKER; Dr. HARDWICKE; Mr. R. M. NUNN; Dr. WHITEHEAD; Mr. EDWARD ROBERTS; Dr. R. LYONS; THE ROYAL INSTITUTION; Mr. D. MONCREFF; Dr. JOHN CORWIN; Dr. J. W. TRIPE; Dr. GARRETT; INQUIRER; THE COMPILE OF THE ENGLISH MEDICAL DIRECTORY; Mr. ROBERT HUNTER; Mr. JOHN LANG; Mr. PEPPERCORN; Mr. W. O'DOHERTY; HOUR OF BATTLE; Dr. HUNT; Mr. FRED. CURTIS; X. P.; SUTTON; Mr. CALVERT COGAN; Mr. R. HALL BAKEWELL; Dr. HANDFIELD JONES; Mr. W. LOVEGROVE; Mr. W. S. HARKNESS; J. B. C.; Mr. A. B. STEELE; Mr. TOYNBEE.

APPOINTMENTS FOR THE WEEK.

FEBRUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
16. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m. ROYAL INSTITUTION, 3 p.m.: Professor Odling "On Organic Chemistry."
18. MONDAY.....		CHEMICAL SOCIETY, 8 p.m. STATISTICAL SOCIETY, 8 p.m.
19. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. Council Meeting at 7 p.m. ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy." LINNEAN SOCIETY, 8 p.m.
20. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. ROYAL COLLEGE OF PHYSICIANS.—*Gulstonian Lectures:* Dr. Kirkes "On some of the Sources and Effects of Contaminated Blood."	GEOLOGICAL SOCIETY, 8 p.m.: Subjects—Mr. H. Poole will read a "Report of a Visit to the Dead Sea."—Professor Owen "On the Affinities of the large Extinct Bird (*Gastornis parisiensis*) indicated by a Fossil Femur and Tibia discovered in the lower Tertiary near Paris."—Professor Owen "On some Mammalian Fossils from the Red Crag of Suffolk."
21. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	UNIVERSITY COLLEGE MEDICAL SOCIETY, 8 p.m.: Mr. M. Foster "On Medicine." ROYAL SOCIETY, 8½ p.m. ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."
22. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m. ROYAL COLLEGE OF PHYSICIANS.—*Gulstonian Lectures:* Dr. Kirkes "On some of the Sources and Effects of Contaminated Blood."	ROYAL INSTITUTION, 8½ p.m.: Professor Faraday "On Magnetic Actions and Affections."

ORIGINAL LECTURES.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.,

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE VI.

[Continued from p. 133.]

TALIPES EQUINUS.

PATHOLOGY—*Non-congenital origin.*—This deformity is essentially, if not invariably, a non-congenital affection. It has been described as occasionally of congenital origin by some authorities, and is often said to be so by unobserving parents, but upon close inquiry we generally learn that it was not observed till "the child began to put its feet to the ground," and neither my colleagues nor myself have ever seen a case clearly of congenital origin. Nevertheless, it may possibly occur as a very rare event.

Numerical importance.—In a Table of 3000 cases of various kinds of deformities treated by Mr. Lonsdale and myself at the Hospital in three years, and published by Mr. Lonsdale in the *Lancet*, 1st September, 1855, 495 cases of club-foot are recorded, and of these 170 were cases of talipes equinus. This deformity occurs most frequently in the right foot only; next in frequency the left foot only is affected; and least frequently it occurs in both feet.

ETIOLOGY.—Talipes equinus may be produced by almost all the causes previously enumerated as producing non-congenital deformities, and which act, first, by *indirectly affecting the ankle-joint* through the muscular system; as spasm, paralysis, wounds of muscles, scrofulous abscesses in the course of the muscles and in the neighbourhood of the joint, long-retained position, etc.,—the modifying influence of these causes upon the external characters of the deformity have already been described;—and, secondly, by *directly affecting the joint*, as chronic inflammation, scrofulous disease, rheumatic and gouty inflammation of the joint, injuries, etc.

Spasm and paralysis. — Of the above-mentioned causes, spasmodic and paralytic affections are by far the most frequent; but, from the variable amount of attention which has been paid to this subject, as well as the different ways in which many of these cases have been interpreted, when seen several years after the attack either of spasm and paralysis, there is some difficulty in deciding as to the relative frequency of these causes in the production of deformity. Thus, in the table above referred to, Mr. Lonsdale has reported that, out of 170 cases of talipes equinus, 103 were of spasmodic, and 53 of paralytic, origin. In the latter class, the paralysis still existed. Of the 14 remaining cases, 7 were of traumatic origin, and 7 are described as cases of contraction of the plantar fascia. In a larger number of cases, reported by Mr. Tamplin (a), it is stated that, out of 401 cases of talipes equinus, 53 only were of spasmodic character, as judged of by the existing condition of the muscles; and 104 of paralytic origin, the paralysis still existing. This leaves 244 cases without any cause assigned; but Mr. Tamplin tells me that, in these, the muscles were either healthy, or at least did not exhibit any marked spasmodic or paralytic condition.

It will be observed, that the relative proportion of the paralytic cases—that is, cases in which paralysis existed at the time they came under observation — remains but little disturbed by the increase of numbers, viz.: about one-fourth of the whole. The material difference exists with respect to the spasmodic cases, and for the following reason:—Mr. Lonsdale entered those cases which did not exhibit any paralysis, or other obvious cause, as cases of spasmodic origin, believing that to be the most probable explanation of the deformity; but Mr. Tamplin entered the cases strictly according to the state of the muscles at the time seen, whether spasmodic, paralytic, or healthy; and this leaves us the large number of 244 cases out of 401, in which the muscles were in a healthy, or nearly healthy, condition,—that is, capable of resuming their functions after the cure of the deformity. With regard to the latter class of cases, my own opinion is, that they are chiefly the result of slight and partial attacks of infantile paralysis, in many of which only a few muscles have suffered, and in which more or less complete recovery has taken place; the paralysis being a transient, and the consecutive deformity a persistent, condition, an event which I described to you in the lecture on the pathology of paralytic deformities. I found this opinion upon a careful analysis of a large number of these cases, and, therefore, in reference to the relative frequency of spasmodic and paralytic affections as causes of deformity, my own experience induces me to think that paralysis lays the foundation of the mischief in a very large proportion of all the cases we meet with in practice.

The mode in which the deformity is produced in spasmodic and paralytic cases, and the resulting structural changes under these conditions, have been already explained in the general account I have given you of these classes of cases.

Wounds, such as sabre-cuts and punctured wounds of the gastrocnemius muscles, sometimes act as causes in the production of deformity, by inducing a state of inflammatory infiltration and retraction of the muscle. Sometimes the nerve-trunks are divided in such wounds, and then the case belongs to the class of paralytic deformities, of traumatic origin, described in a previous lecture.

Scrofulous abscesses.—Abscesses of a scrofulous character, occurring in the course of the muscles of the calf of the leg, and in the neighbourhood of the ankle-joint, sometimes produce talipes equinus. Many of these abscesses are essentially subcutaneous, and unconnected with diseased bone: but others lead down to superficial scrofulous caries, or necrosis. In many of these cases the joint is free from disease, but the rigidity of its contraction, from the nature of the structural changes, renders it impossible to say, at a late stage, whether soft, or even bony anchylosis has, or has not, occurred. Experience, however, proves that they generally yield to division of tendons and slow mechanical extension, of which the case figured (No. 23) is a good example.

From the length of time over which this scrofulous affection extends, often several years, a great deal of inflammatory infiltration, and induration of all the tissues, remains. The muscles are always damaged to a considerable extent by a process of atrophy, induced by the effusion of lymph, between the muscular fasciculi and its development into fibroid tissue. A state which has been described as "inflammatory retraction," is the result, and operates as the immediate cause of the deformity, the rigidity of which is simultaneously increased by the adapted atrophy and shortening of the ligaments.

Position.—Long-retained position acts as a cause of deformity, by inducing a state of adapted atrophy in the muscular and ligamentous tissues. Structural changes of degeneration in the muscular tissue take place slowly under these circumstances, as compared with the paralytic cases, because the nutrition of the limb is much less interfered with.

Causes directly affecting the joint.—Chronic inflammation, scrofulous disease, rheumatic and gouty inflammation, injuries, etc., operate as causes in the production of deformity,

(a) London Medical Gazette, 1851.

by inducing inflammatory infiltration, followed by adapted atrophy of the ligaments, synovial membrane, and areolar tissue, immediately surrounding the joint; and, also, by inducing destructive disease of these tissues, as well as of the cartilages and bones, to a greater or less extent. These conditions generally terminate in what is called anchylosis, or complete immobility of the joint affected. It is worthy of remark, that long experience in the treatment of these cases has convinced us that *bony anchylosis* is a much less frequent result of inflammatory mischief, either in the ankle or any other joint, than is generally supposed. *Soft anchylosis* is certainly the rule, especially after the strumous diseases which so frequently terminate in deformity. However, in the cases following chronic rheumatic inflammation, and, in some cases, directly resulting from external injuries, there is a greater disposition to bony anchylosis; and, if this does not occur, a much more rigid and unyielding form of contraction results than in the other forms enumerated.

Prognosis.—The *prognosis*, in cases of talipes equinus, must have reference to two very distinct points, viz.: the cure of the deformity; and the probability of the patient gaining complete voluntary power over the foot and the muscles of the lower extremity, many of which are frequently involved in the general affection, of which the deformity is the result.

With regard to *the cure of the deformity*, the prognosis may always be favourable, except when bony anchylosis has taken place—a very rare condition. The *age* of the patient and *duration of the deformity* will, of course, influence the duration of the treatment, extending the time from six weeks, which is generally sufficient in young people, to three or four months in some very rigid cases. We have succeeded in curing this deformity, without much difficulty, in cases above 60 years of age; and a gentleman upon whom I operated, and whose foot is represented in Fig. 4, was 54 years of age. As regards the deformity, then, age will not interfere with your giving a favourable prognosis. You may confidently undertake to cure the deformity, and with it, of course, all the lameness and other inconveniences which depend upon the abnormal mechanical relations between the foot and the leg.

With respect to the second point, viz.: *the probability of the patient gaining complete voluntary power in the foot, and usefulness of the limb, after the cure of the deformity*,—the prognosis must depend upon a variety of circumstances, more especially the cause producing the deformity, whether indirectly or directly affecting the articulation; and in the former class, which are principally of spasmodic or paralytic origin, more particularly must it depend upon the number of muscles involved, and the precise condition of such muscles.

Spasmodic and paralytic cases.—In the preceding lectures on the general pathology of non-congenital deformities, I have endeavoured to explain to you the principles upon which an accurate prognosis may be based in the spasmodic and paralytic cases, arranged in three classes, according to the state of the muscles, viz., whether rigid, flaccid, or healthy; and these cases will be found to constitute by far the greater number met with in practice.

Wounds.—In cases in which the contraction has been produced by a wound in the gastrocnemius muscle, received some time previously, there may not be much damage to the muscle at the time the case comes under treatment for the deformity. In these cases the muscle retains its voluntary power, although structural shortening has taken place; and if time has been allowed for the inflammatory infiltration to clear off, it acts very well after the cure of the deformity; so that the power over the foot is sufficiently perfect to render mechanical support unnecessary. The prognosis will, therefore, generally be favourable with respect both to the cure of the deformity, and the restoration of power.

Scrofulous abscesses.—In cases of talipes equinus, produced by scrofulous abscesses occurring in the course of the muscles and neighbourhood of the joint, but not implicating the joint, as explained in the observations on the etiology of contraction under such circumstances, the prognosis may be favourable with respect to the cure of the deformity; but the opinion must be very guarded and uncertain with respect to the restoration of free motion and voluntary power, in consequence of the inflammatory infiltration and degeneration of muscular tissue which accompany this condition; and also in consequence of some uncertainty as to the exact condition of the joint. The patient may, however, obtain a very useful amount of motion in the ankle-joint, and also of voluntary power. These results have been obtained in a case at the present time under my care, and of which I now show you the casts (Figs. 23 and 24).

Fig. 23.

Talipes Equinus caused by inflammatory retraction.

The young lady who was the subject of this deformity, Miss M., aged 15, was brought to me on the 18th July, 1854, by Mr. Brendon, of Highgate. She was of a decidedly strumous diathesis, tall, thin, and growing quickly. She had been subject to strumous abscesses in various parts of her body since early childhood, and contraction of the foot had existed for several years. From the rigidity of the contraction, it was impossible to detect motion satisfactorily in the ankle-joint, but there was no other reason to suspect the existence of joint-disease. Mr. Brendon's opinion was that the joint had not been implicated, and this proved to be correct. A distinguished surgical Professor of this Metropolis had been previously consulted, and proposed to cure the deformity by *breaking it down*, an offer which was very prudently rejected. By the simple operation of tenotomy and gradual mechanical extension, most carefully conducted by my friend Mr. Lane, of Highgate, to whom the successful result of the case is mainly attributable, the deformity was completely cured, as shown in Fig. 24, without any serious risk having been incurred; and she has now a slight but gradually increasing amount of motion in the ankle-joint. The muscular and other structures have of course been too much damaged to allow of perfect restoration of muscular power. A disposition to lateral curvature of the spine was becoming very apparent in this case, but I believe has now disappeared.

Fig. 24.

Cure of Case exhibited in Fig. 23.

Position.—In talipes equinus, induced by long-retained position, there is nothing to interfere either with the cure of the deformity, or perfect restoration of voluntary power. The deformity is never severe when free from other complications; and degeneration of the muscular structure, therefore, does not occur to any considerable extent, so that the prognosis may be in all respects favourable. These cases, however, are amongst the least frequent you will meet with in practice.

Causes directly affecting the joints.—I have now referred to most of the practical points by which the prognosis may be influenced in cases of talipes equinus arising from causes *indirectly* affecting the movements of the ankle-joint. In the second class of cases, viz., those produced by causes *directly* affecting the joint, such as scrofulous or rheumatic inflammation, injuries, etc., your prognosis must be guided by general Surgical principles; but will, of course, mainly depend upon the extent to which the joint itself, or structures immediately surrounding it, may have been destroyed, or modified by the diseased action of which the deformity is the result. In the great majority of cases the deformity may be cured, and the patient benefited in proportion to ite severity, and any inconveniences which may have arisen from it; but the restoration of free motion and voluntary power is out of the question. Bearing in mind what has been said of the relative frequency of bony and soft anchylosis, the prognosis in these cases may

be more favourable than you might be disposed to infer, because we find that the soft anchylosis yields to tenotomy and well-regulated mechanical extension, without the danger of creating fresh mischief in the joint necessarily attending the method of forced rupture. In the cases following chronic rheumatic inflammation, and in some cases directly resulting from injury, your prognosis must be less favourable, as there is a greater disposition to bony anchylosis and a condition of the surrounding parts and tissues of the joints very unfavourable to the recovery of free motion.

Treatment.—*The treatment* of talipes equinus is both operative and mechanical combined. It is useless to try mechanical treatment alone, except in cases of very slight and recent contraction, and even in these I believe it will be found much more efficient in combination with passive exercises and shampooing.

Parts requiring division.—The only important tendon requiring division is the tendo-Achillis. Its small accompanying tendon, the plantaris, is scarcely worth mention; it is generally included in the section of the tendo-Achillis, but sometimes yields before the knife without division, and may be felt as a very tense little cord which had better be divided. In many cases, also, it is necessary to make a free division of the plantar fascia, and short flexor muscle in the sole of the foot.

Now, you will probably recollect, in the historical sketch of Orthopædic Surgery I gave you in the first lecture, the account of the mode of dividing the tendo-Achillis adopted by Sartorius in 1806. The preliminaries consisted in bandaging the leg, applying a graduated compress and tourniquet to the femoral artery, and administering mxv. of tincture of opium with a glass of wine to the patient. An incision four inches in length was made over the tendon, which was then carefully dissected, and as the contraction appears to have depended upon scrofulous abscesses in the leg, as in the case I have just described to you, the adhesions were all separated; and to facilitate this, the external incision was extended to the os calcis. The tendon was then divided obliquely with the scalpel.

The contrast between this violent, dangerous, and unscientific proceeding, which we are told was also adopted by other Surgeons, and the very simple operation by which we now divide tendons,—characterized equally by its simplicity, freedom from danger, when skilfully performed, and scientific character,—is indeed a contrast which Surgeons of the present day may feel some pride in being able to make, and for which we are mainly indebted to Stromeyer.

I have already given you a somewhat detailed historical sketch of the different modifications which were, from time to time, suggested by various Surgeons in the operation of tenotomy, remarking more especially upon the slow recognition (or rather the complete oversight) of the great Hunterian law in reference to the pathology of subcutaneous and open wounds, upon which all the security and strictly scientific character depends, and which had been published thirty-seven years before Stromeyer's operation, and twelve years before the barbarous operation of Sartorius.

If tenotomy is at the present day occasionally followed by dangerous inflammation, of which I have witnessed several examples,—and, moreover, a little local inflammation is by no means an uncommon event in the practice of some Surgeons,—it is because the value of the true subcutaneous character of these operations is not yet fully appreciated. I have very frequently seen the operation commenced well, the puncture and size of knife being sufficiently small, but, by the time the tendon has been divided, the puncture has been increased at least two or three times its original size. By such a proceeding the true subcutaneous character of the operation is immediately lost, and the chances of inflammation proportionably increased. To avoid this accident, it is generally recommended that you should use a knife which only cuts for about five-eighths of an inch from the point, the rest being blunt and rounded. This precaution may be useful to those who are unaccustomed to such operations, or have but little tact in operating; but I have seen a large tendo-Achillis scratched through rather than cut, by such a cautious knife, and will show you how to avoid enlarging the cutaneous puncture without curtailing the edge of the knife, and thereby diminishing its usefulness. To cut a tendon cleanly and quickly, you must use a cutting edge considerably longer than the breadth of the tendon; the cutting edge I use for an adult varies from an inch to an inch and a-quarter in length.

Mode of dividing the tendo-Achillis.—Place the patient on the stomach, with the foot hanging over the edge of the table or bed, and let an assistant put the tendon on the stretch by endeavouring to flex the foot, while the leg is kept in an extended position. He must be prepared instantly to relax this tension, as the section of the tendon is completed. Then introduce the tenotomy knife with its flat surface parallel with the tendon, close to the inner or outer edge of the tendon, according to the leg operated upon, and rather towards the posterior surface, than on its lateral aspect, as usually done. Pass the knife obliquely downwards, keeping the point close to the tendon, beneath which you may then carry it to the opposite side, and in this movement you will, of course, depress the handle to a horizontal direction. Now turn the cutting edge towards the tendon, and divide it transversely from the internal to its extenal surface. By this method you gain a most important *lever-advantage* in cutting the tendon, and avoid all risk of enlarging the cutaneous puncture, as the pressure at this point is rather on the back than the edge of the knife. If you hold the knife horizontally, and enter it at the lateral aspect of the tendon, and rather below it, as is frequently done, you will sometimes meet with considerable difficulty in dividing a tough Achilles tendon, because you operate upon the tendon mechanically to the greatest disadvantage; the tendon yields before the knife, without division, and in this way I have seen a Surgeon almost despair of cutting it; change his knife—which, undeservedly, gets all the blame—introduce a new one, and then succeed only after a great deal of perseverance by a sort of scratching with the point, which must be directed upwards, while the handle is depressed to a corresponding extent. In such a proceeding the cutaneous puncture is generally much enlarged, and a risk of subsequent inflammation incurred. Tendons cannot be divided with safety to the patient unless they are divided neatly, quickly, and without disturbance to the surrounding tissues; and the puncture should never exceed an eighth of an inch in length. In infants the tendons readily give way before the direct pressure of a sharp knife, in the movement I have described to you, but in adults a little cutting manipulation is required.

A sudden, audible snap and yielding of the joint indicate the division of the tendon, when the muscular structure is in a healthy, or a nearly healthy, condition, as in the infantile cases and those of spasmodic origin; a perceptible separation of the divided extremities also occurs, leaving a gap at the seat of operation; but where advanced atrophy and degeneration of the muscle have taken place, as in cases of paralytic origin, and, in cases of adult varus, no audible snap occurs; and, in the last class of cases, as well as in those of the most severe form at younger ages, the separation is extremely slight, from the condition of the muscles and the ligamentous rigidity of the joint.

The division of the tendo-Achillis is *not necessarily followed by hæmorrhage.* I have frequently divided it, and sometimes, in two or three cases in succession, without even staining the knife with blood; this depends very much upon the care with which the point of the knife is kept close to the tendon. It is rare to see more than two or three drops of blood follow this operation when carefully performed.

Pressure after division.—On the instant of withdrawing the knife, cover the wound with your finger, and immediately apply a small compress of lint, held in position by a strip of adhesive plaster. This prevents effusion and infiltration at the seat of the wound. Then bandage the foot and leg up the calf, and bind the foot, in the same position in which it was before the operation, to a padded splint adapted to the deformed shape of the foot; a splint made of tinned sheet-iron is most useful, as it can readily be bent to any shape required. In talipes equinus a nearly straight splint should be applied along the dorsum of the foot and in front of the ankle-joint.

Another mode of operating.—Some Surgeons recommend the tendo-Achillis to be divided by passing the knife flatwise between the tendon and skin, and then cutting through the tendon from behind forwards. Mr. Fergusson advises this method, but I very much prefer the mode I have described to you.

Risk in each method.—Each plan has its liability to an important accident. In the division from within outwards, you may also divide the skin, and make a large open wound—an accident which I have seen occur two or three times. Thi

may result either from a too vigorous and incautious operation, or from your assistant not being on the alert instantaneously to cease flexing the foot on the division of the tendon; and also, in the event of a spasmodic contraction of the anterior muscles taking place, from your assistant not instantly controlling this by a strong counter-effort of extending the foot. While, therefore, your assistant is making a strong effort in one direction, he must be prepared suddenly either to cease, or to reverse the effort in an opposite direction,—close adhesions between the tendon and skin, either the result of a previous division, or inflammatory mischief which may have produced the deformity, will especially increase the liability to this accident —In dividing the tendo-Achillis from without inwards, there is a risk of puncturing the posterior tibial artery, an accident which I once saw occur in a boy about 12 years of a ge, and I have heard of its occurring again in the practice of the same Surgeon; the jets of blood left no doubt as to the nature of the accident in the case I witnessed, but I believe it did well under pressure.

After the operation, the patient, if an adult, should remain on a sofa for the remainder of the day, with the leg resting on a pillow in a flexed position. On the following day he may walk about, with the assistance of a pair of crutches. The foot should be kept warm if paralytic.

In the next lecture, I will describe the mechanical and after-treatment of this deformity.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

A TABULAR ACCOUNT OF WOUNDS THAT OCCURRED IN THE FOURTH DIVISION OF THE ARMY AT THE SIEGE OF SEBASTOPOL,

DURING THE QUARTER ENDING JUNE 30, 1855.

By FREDERIC ROBERTS, Esq.
Staff-Surgeon of the First Class.

THE following Table is abridged from my Report, as Principal Medical Officer, of wounded in the Fourth Division, for the quarter ending June 30, 1855. In order to convey, with the least labour, and, at the same time, the greater perspicuity, information as to the nature of the wounds that presented themselves, they were classed conformably to the regions injured, and according to the projectile or weapon which inflicted the injury, and accompanied by tabulated remarks and columns of results.

Description of Wounds.	Remained.	Admitted.	Musket Ball.	Round Shot.	Shell or Stone Splinter.	Grape Shot.	Bayonet Wounds.	Blow with but-end of musket.	Explosion with gunpowder.	Slugs.	Remarks.	Primary Amputation.	Secondary Amputations.	Cured.	Died.	Sent to General Hospital.	Under Treatment.
Contused or lacerated wounds of head, neck, and chest.	1	51	26	..	16	7	..	1	1	..	In the 68th Regiment one man received a contusion of the head from but-end of musket; and another had both eyes destroyed by explosion of enemy's musket close to his face, the ball passing without injuring the man.	..	..	23	1	17	11
Wounds, with fracture of cranium, bones, face, and neck.	1	9	7	..	2	..	1	..	..	..	In the 68th Regiment there occurred a case of bayonet wound of the skull, penetrating the right side of the frontal bone, and passing in an oblique direction across the hemispheres of the brain. The operation of trephining was performed. Having suffered from symptoms of compression from first reception of the wound, the man died on the third day.	..	..	..	2	5	3
Wounds of chest not penetrating cavity.	..	18	3	1	10	3	..	..	..	1	In the 48th Regiment a man received wounds in the integuments from twelve slugs, during an attack in the trenches.	..	..	9	..	4	5
Ditto penetrating cavity.	..	10	7	..	1	2	..	..	..	..	In the 17th Regiment there occurred a case of grape shot passing into the cavity of the chest at the right side, and escaping in front before reaching the sternum, carrying away cartilages of ribs and exposing the pericardium. Was alive in September, when the patient went into General Hospital.	..	..	1	4	3	2
Wounds of abdomen not penetrating.	..	7	1	..	6	..	..	..	..	..	Three of these died from extensive lacerations by shells.	..	..	2	3	1	1
Ditto penetrating.	..	9	4	..	2	2	1	..	..	..	One case of wound of liver lived in 17th Regiment. Cases died from wounds of liver, intestines, and diaphragm from shot and shell; also one from bayonet wound through the pelvis, in another regiment.	..	..	..	5	3	1
Contused or lacerated wounds of upper extremities.	6	79	49	2	19	6	..	..	..	..	One case of wound by rifle ball entering two inches below the head of humerus, grazing the bone, and lodging beneath the muscles on the right side of the back, was followed by dislocation at the shoulder-joint.	12	2	7	3	17	10
Ditto with fracture.	1	36	23	2	8	3	..	..	..	..	Several of these were serious cases, and amputation was frequently required. In one case secondary amputation on account of gangrene.	..	..	41	..	14	30
Contused or lacerated wounds of the lower extremities.	5	66	32	1	26	9	..	..	..	..	One of these cases only succumbed to the effects of extensive laceration.	..	..	25	1	29	16
Ditto, with fracture.	2	16	8	2	6	2	..	..	..	..	Chiefly compound fractures. Secondary amputation on account of gangrene from extensive destruction of muscle, was required in one case, which was followed by death.	5	1	..	2	10	6
Total.....	16	301	160	8	96	34	2	1	1	1		17	3	108	21	103	85

In glancing over the figures in the Table it will be seen that there exists great inequality in the number of wounds received in the upper and lower half of the body—in the former, the number of admissions during the quarter having been, including the chest, 203, and in the latter, including the abdomen, 98 = 301.

Combat in the trenches would, of course, dispose to this disparity by the upper half of the body being chiefly presented to the enemy's rifle fire; but, even in the open field likewise, this same action in the course of bullets, to which the wounds were mostly confined, would appear to have prevailed. After the action of the 18th of June I instituted a statistical inquiry of the regions in the body on which injuries had been inflicted, and found that out of 170 men, exclusive of officers, wounded on that day in the Division, 30 were wounded in the head, face, and neck; 70 in the upper extremities (arms); 26 in the trunk; and 44 in the lower extremities (legs and thighs). Among these men there was also

presented a great disparity in the number of wounds received in the right and left sides of the body. There were received in the—

Right upper extremity . .	29	Difference, 12.
Left ,, ,, . .	41	
Right lower extremity . .	20	Difference, 4.
Left ,, ,, . .	24	

It is possible that this difference may be explained by the left side of the body being thrown forward in the act of firing the rifle, and thereby being rendered more exposed to the enemy's fire.

One would be impressed, rather than that the enemy was short of ammunition, that slugs, as shown by the case of the man in the 48th Regiment, were used with the view of multiplying his chances of disabling, which is the object in combat, rather than killing his opponent.

INFLAMMATION OF THE OS AND CERVIX UTERI,

WITH UTERINE IRRITATION FROM THE IMPROPER USE OF CAUSTIC.

By Dr. RIGBY.

Mrs. B., aged 46, married twenty-one years; eleven children.

October 9.—Stout, pale; complains of smarting heat in the vagina and vulva, with dragging pain of the loins and right hip; pain on passing solid fæces. Pulse weak. Tongue rough and swollen. Evacuations clayey and offensive. No leucorrhœa.

Has had caustic applied to the os uteri every fourth day for a twelvemonth, excepting during an interval of two or three months. At first it produced great relief to her symptoms, but afterwards the pain it caused was greater than the relief.

Examination per vaginam.—Os uteri hard, lips large, cervix short, hard, and tender; uterine sound 3½; uterus bulky. pressure over the symphisis pubis on the right side produced Pain, and slightly moved the sound.

Pil. hydrarg., extr. hyosc., āā gr. v., alt. noct.

Mist. ferri et magnesiæ sulph., o.m.

Mist. potassæ bicarb. et nitr., ter die post cibum.

Supposit. plumbi diacetat. c. conio, o.n.

December 10.—Feels much better. The catamenia, which had ceased for three months, have appeared three times regularly, but dark and lumpy. Tongue not rough, but furred and yellow at the back. Evacuations clay-coloured; urine loaded. Has been suffering from ague, frequent sharp pain and sense of burning at the sternum, with feeling of oppression. Barking cough.

℞ Extr. aloes aquosi ℈ij., extr. hyosc. ℈i.ss., mastiches gr. xij. M. Ft. pil. xx.; sumat. ij., h.s.

Mist. acidi nitro-mur. c. taraxaco ex infuso cinchonæ cordifoliæ.

℞ Linim. camph. co. ʒij.ss., tinct. opii ʒss. M. Ft. linimentum, sterno applicand.

15. Much oppression at the chest; pulse very feeble; slight shiverings; general depression.

℞ Hydrargyri chloridi gr. iv., extr. lupuli gr. vj. M. Ft. pil. ij., h.s.s. Rep. mist. Let her take half a Seidlitz powder to-morrow morning.

18.—Much better. Bowels well relieved; breathing easy; no shivering. Pulse and tongue better. Cough is easier, and more loose.

Rep. pil. hydrarg. chloridi, h.s.

Mist. acidi nitro-mur. c. taraxaco ex infus. aurant. co.

Perhaps, strictly speaking, the condition of the uterus did not justify the term "inflammation," although the os was swollen and hard, the cervix tender, and the whole organ enlarged and painful when pressure was applied above the symphisis pubis. There can be no doubt, however, that the uterus was in a highly irritable state, and closely resembled the character of the preceding case—neither had this patient any leucorrhœa; and, if this circumstance be considered to contra-indicate the existence of inflammation, it will equally apply to that of ulceration. Although I entirely dissent from the dictum that leucorrhœa does not exist without ulceration, I equally believe that ulceration cannot exist without more or less discharge; and, on the strength of this fact, I did not consider it necessary to use the speculum. I considered that the absence of any leucorrhœa was simply owing to its being a mild case of speculum and caustic treatment, and that a little attention to the general health, and local applications of a soothing character, would afford her the necessary relief.

Excepting the above-mentioned interval of about ten weeks, this patient, for a whole twelvemonth, had never gone more than three days without the application of caustic to the os uteri. I would ask, what circumstances can justify such treatment, and what objects are to be gained by thus keeping up a prolonged course of severe irritation, and that to an internal part and little calculated to bear it? Had its early applications, which are said to have produced great relief, been made at proper intervals of not less than seven or eight days, and a moderate amount of attention given to the treatment of the general health, the result would have been very different: she would scarcely have required a second application, certainly not a third. Had it not been that the continuance of these applications was attended with so much positive suffering, I should have almost doubted that they had been made so frequently as the patient was led to suppose. As regards the size of the os and of the uterus itself, this may, in a great measure, be fairly attributed to her having had so large a family; but the hardness and tenderness of these parts, and other local symptoms, were, in my opinion, due to the treatment she had undergone. I am unable to state now whether she had suffered from actual ague, or whether many of the symptoms which were attributed to this condition were not the results of general derangement of the chylopoietic viscera in a very enfeebled condition of the system. At any rate, two brisk doses of calomel and a mild tonic afterwards appeared to remove them very effectually.

Mrs. C. aged 36, married nine years, two children, one abortion two years ago.

June 27.—Complains of severe weight and bearing down, with feeling of swelling of the abdomen; cannot stand from the severity of this pain; has a dull pain over the symphisis pubis, increased by any movement or concussion; says that she has a partial prolapsus uteri, which has not been relieved as her health improved; bowels confined; constant leucorrhœa of a purulent watery character; catamenia every three weeks with clots.

She felt the above pain after her first labour, but it was much increased by the abortion; a month after which she had a severe attack of menorrhagia.

She has been kept on the caustic treatment of a well-known speculative Practitioner of this Metropolis ever since February, without deriving any benefit; indeed she says that she is *always* worse after it, and on one occasion it was followed by an attack of menorrhagia.

Examination per vaginam. Vagina dripping with watery discharge, os uteri hard; uterine sound passes 3 inches; fundus somewhat forward.

Cum speculo. Os uteri much injected with venous branches ramifying over it—it is not swollen; a constant stream of discharge flows from the os uteri.

Mist. ferri et magnesiæ sulphatis o.m.

Acid. nitro-mur. co. taraxaco ex infuso gentianæ co., ter die. Suppositorium plumbi c. conio.

She returned to the country, and I heard nothing more o her for a year and a half, when another Medical man consulted me about her, in a letter containing a very able statement of her case. She had been originally under his treatment some time previous to her consulting the discoverer of the "ulceration;" and her health had been much improved by it, and although it did not appear that she had experienced any material improvement, yet she acknowledged that she had also derived relief from the course of treatment I had recommended. After a while, caustic had been again applied, and produced so much suffering that she at length put herself again under his treatment. She had then been in bed for many months—was unable to lie on the left side, and experienced great pain at the lower part of the abdomen, with sense of weight and bearing down whenever she assumed the erect posture; the leucorrhœa continued, the catamenia appeared every three weeks, leaving a sensation of rawness, soreness, and burning heat within her; the health was much broken and the mind greatly depressed.

This is a much more serious instance of the mischief produced by the improper use of caustic. The original course of treatment, which had been successful, had been sanctioned by

two of the most eminent Practitioners in the neighbourhood, whose opinions had been requested, so that we have a fair illustration of the *argumentum crucis* in this case. A large proportion of the watery discharge issued from the uterine cavity, and evidently produced relief, for whenever it diminished, or was checked, her various sufferings were much aggravated; but the vagina, in all probability, also furnished a considerable portion, and its relaxed atonic condition, by affording no support to the enlarged and congested uterus, gave rise to that state of partial prolapsus, which in her case was so peculiarly painful. This was one of the earlier cases in which I had noticed the venous congestion of the membrane covering the os and cervix uteri, and in which I felt convinced that it was the result of prolonged and frequent applications of caustic. The description which was favoured me by her intelligent Medical attendant, eighteen months after I saw her, gave a melancholy picture of severe suffering, and, I fear, irremediable injury. It would have been interesting had he made an examination with the speculum, if she could have borne it, because the additional symptom of a sense of internal heat, which she compared to a burning coal within her, made me fear that veritable ulceration (and that of a corroding character) had at last commenced, and would ere long, probably terminate her sufferings.

ON THE FREQUENCY OF LACERATION OF THE PERINÆUM IN PRIMIPARÆ.

By T. SNOW BECK, M.D. Londin., F.R.S.
hysician to the Samaritan Free Hospital for Women and Children, etc.

About four or five years ago, it was stated during a discussion at the Medical Society of London, that laceration of the perinæum often occurred during first confinements, and was seldom followed by consequences of any importance. A statement of this kind was so contrary to the received opinions, that I recollect appealing to different practical accoucheurs at the time, who all declared they had never met with a case during several years of extensive practice. And I should have also said, if I had given an opinion, that no such accident had ever occurred in my own practice. But as I was then engaged in testing the correctness of an opinion which had been put prominently forward about that time, *i.e.*, that laceration of the orifice of the uterus not unfrequently happened during labour, and was followed by ulceration, entailing nearly all the ills to which woman was heir to,—I determined, also, to ascertain carefully the condition of the perinæum after each labour which came under my own observation.

A few days after the discussion at the Medical Society, I was called upon to attend a young lady, aged 23, in her confinement with the first child. She was of middle stature, sanguine temperament, and broad conformation, and had enjoyed uninterrupted good health during her pregnancy. The labour pains came on naturally, the vagina was lax and lubricated with a free secretion of mucus, the vulva and perinæum were soft and distensible. The waters broke after the orifice of the uterus was freely dilated, and the head came down and presented naturally at the orifice of the vagina. The pains were sufficient, but not violent, and the head was expelled with apparently less suffering than usual, and while the perinæum was carefully guarded. Not any evidence of laceration was perceived, either from unusual suffering by the mother, or from any sensation to the hand whilst guarding the perinæum. In a short time the shoulders and body were expelled by another parturient effort; and the placenta was found detached and readily removed. I felt so assured that nothing unusual had taken place, that I scarcely considered it necessary to make an examination after the placenta had been taken away. I was therefore greatly surprised to find on examination, that the perinæum was lacerated through its whole extent, the lacerated portion presenting the sharp defined edges of a recent breach of surface. No perceptible laceration, however, could be detected at the orifice of the uterus after the most careful examination with the finger. At the visit in the evening I mentioned that some tearing had occurred, and that it was necessary to ascertain the extent; when by placing the patient on her side, the parts were carefully examined by the eye. This confirmed the previous diagnosis, and showed that the laceration had taken place a little to the left side of the fourchette, and had extended to the rectum, exposing the circular fibres of the sphincter ani. The parts were flaccid, and the sides of the laceration in apposition—no unusual soreness was complained of. The knees of the patient were tied together, in order to prevent too much movement of the body, and the nurse directed to wash the part with warm water twice or thrice daily. On the third day the laceration was again examined, and I was surprised to find that union by the first intention had taken place through the whole extent. No further inconvenience followed, and when I took my leave the perinæum was as perfect as if no laceration had ever occurred.

The next case was somewhat different. The lady was rather tall, about 25 years of age, fair, soft skin, and had been "rather poorly" during her pregnancy. There was but little secretion from the vagina, yet the parts were cool and dilatable. After the pains had continued for twenty-four hours, and the patient become much exhausted, I thought it desirable, as the hand was pressing on the perinæum, to apply the short forceps, and complete the labour. No difficulty was experienced in this procedure, the child being readily extracted with one hand, while with the other the perinæum was supported. No laceration had taken place immediately before the expulsion of the head. After a little time, another pain expelled the body, but the placenta did not immediately follow, and was brought away by traction at the cord, combined with gentle pressure over the body of the uterus. By the examination which was then instituted, not the least laceration of the orifice of the uterus could be detected; but, as in the former case, the perinæum was torn through its whole extent. The following day I examined the parts with the eye, and found that such was undeniably the case. The same treatment was followed, but no union by the first intention took place. For some few days the laceration presented the same appearance, but subsequently granulations formed, the sides united at the posterior part, and gradually union followed through the whole extent; thus forming nearly as good a perinæum as before the accident.

It will be unnecessary to detail each case, suffice it that I have before me the notes of one hundred and twelve cases of primiparæ, observed within the last five years, of which seventy-five, or two-thirds, had laceration of the perinæum through the whole extent; while in thirty-seven, or just one-third, no laceration took place. Unless this result had been fortified by notes made as soon as I returned home, and by the examination of the parts by the eye, as well as by the touch, I might have considered that some error had crept into these observations; but, with the precautions taken, I feel assured of the accuracy of the result, however contrary it may be to previous opinions.

The laceration apparently took place just as the head was extruded. The perinæum was perfect immediately before the head was expelled, and was lacerated after the birth of the child. In a few instances, by keeping the finger on the centre of the perinæum, it was felt to give way, to allow the head to pass; but in the great majority no indication of laceration was perceived until after the completion of parturition. In the interval between the extrusion of the head and the expulsion of the body, the parts were so much on the stretch, that it was impossible to determine with certainty whether laceration had occurred or not; but, as the shoulders passed without the least difficulty through an opening of sufficient size, it appears most probable that the laceration did not take place at this period, but had occurred previously.

Of the seventy-five cases in which laceration occurred, fifteen of these, or twenty per cent., healed by the first intention, and the perinæum was as perfect as before the confinement; while fifty-three, or seventy-five per cent., healed by granulation, and produced a more or less perfect perinæum. In not one instance has any inconvenience followed,—such as prolapsus of the uterus, bearing-down pains, etc.,—and in only one case was there any trouble attending the accident. This case was amongst the first observed, and while my mind was still imbued with the serious consequences which followed laceration of the perinæum. It did not heal by the first

intention, and the granulations were small, and showed little inclination to unite into those of the opposite side. I became anxious, applied different remedies, and, finally, the quilted sutures. Nothing which was applied appeared to produce any effect, and the operation of the sutures was decidedly injurious. In the first instance, it frightened the patient; was a source of constant annoyance; produced irritation of the part; and, from the pressure of the silk inducing ulceration of the deeper structures, became loose, and was obliged to be removed. The laceration, however, gradually healed, leaving not more than a quarter of an inch of the rupture unclosed. In this case, the effects of the ligatures were such as to deter me from applying them on any subsequent occasion. In all the cases I have observed, neither the patient nor the nurse was aware that anything had occurred more than usual. The patient said she felt very sore, could not sit up in bed for some few days in consequence, and when she began to sit up out of bed, required a pillow, or some soft substance, to sit upon. But these were considered as "nothing more than usual on such occasions."

Little need be said of the thirty-seven cases wherein laceration did not occur, except that some, at least, were such as might, *à priori*, have been supposed likely to suffer from this accident. The patients were spare, and rather above the average size; the perinæum small in extent, firm, and somewhat unyielding. But in women with this conformation, scarcely one suffered from laceration, and then only when the size of the child was disproportioned to that of the pelvis of the mother; but when the perinæum was broad, thick, and soft, scarcely one escaped being torn through.

It, of course, will remain for further observation to determine whether these cases, taken indiscriminately from the practice of one Physician, fairly represent the average occurrence of this accident in women confined with their first child. If it does, then laceration of the perinæum becomes the rule in such cases, instead of the exception; but, even if it does not, it yet shows that this accident is of much more frequent occurrence than has been supposed. These cases further show that when laceration does occur, this will heal perfectly by ordinary attention, rest, and cleanliness. Such, at least, must be admitted from the result of the seventy-five cases, every one of which has healed with little trouble, and none have been followed by any annoying consequences. From these facts we may, I think, advance a step further, and conclude that, in cases where the laceration has extended through the sphincter ani, there is great probability that the laceration will heal, in many cases, by the natural process; and that time should be given for this purpose, before any operative procedure is had recourse to.

The majority of those females who form the subject of these observations have been confined with the second, and several with the third, child; but in no instance has laceration again taken place, and in only one was there a slight tearing, during the birth of a large child, which soon healed. It would then appear that the cicatrix which follows a lacerated perinæum is less liable to give way during parturition than the natural structure of the part.

It is an acknowledged fact that severe laceration of the perinæum, involving the sphincter ani, has not unfrequently occurred without the accident having been discovered until some time subsequently, by the inability of the patient to retain the motions, and other distressing consequences. And it is also known that tearing of the perinæum, up to the sphincter, has taken place, and has not subsequently healed. But we have no information as to the circumstances which have interfered with the healing process, which, these present cases appear to show, usually takes place. My own experience would lead me to conclude, that many cases may, and do, occur, without the Medical attendant being aware of the accident. For, although my attention was specially directed to this point, yet several occurred wherein the laceration was not perceived until a careful examination of the parts had been made after the labour was completed. Had this examination, which is unusual, not been instituted, the accident might not have been discovered, either at the time, or subsequently, by reason of the strong tendency which appears to exist for the healing of any tearing or other injury to the generative organs of the female when the process of parturition has been completed.

Langham-place, December, 1855.

A CASE IN WHICH ONE HUNDRED RENAL CALCULI WERE PARTLY DISCHARGED AND PARTLY REMOVED FROM THE BLADDER.

By JOHN ADAMS,
Surgeon to the London Hospital.

I SEND you a brief account of this case, not that there is any great rarity in it, but because, in the removal of some of the calculi, it became requisite to vary the plan usually had recourse to in such cases.

A gentleman, 76 years of age, called on me complaining of a frequent desire to pass his water; micturition was always attended with much uneasiness, and was equally urgent day and night.

The urine had latterly become tinged with blood.

In outward aspect he was a man of robust health, and I was astonished when he told me his age. His symptoms were by no means increased by exercise. He told me that he had laboured under a similar train of symptoms for more than nine months, but they had lately increased in intensity, and that his Surgeon had passed a catheter and drawn off his water, but could detect nothing in the bladder. Although the symptoms pointed rather to the existence of stone in the bladder, I, nevertheless, was inclined to attribute them to an hypertrophied prostate. His age and the comparative mildness of the symptoms led me to this conclusion. I therefore advised him to admit an examination by the catheter and per anum, but as he felt certain in his own mind that no water was left in his bladder after each micturition, he was anxious to try the effect of medicine; I therefore prescribed some mucilage with liquor potassæ and hyoscyamus.

When I saw him about ten days afterwards, he told me that he was worse and had discharged a number of small stones. The nature of the case became now elucidated, and I therefore passed a large catheter with a long eye on the concave, and immediately three or four calculi were forcibly discharged, together with two or three ounces of bloody urine. The calculi had the appearance of renal calculi; but I thought it probable, that they might have come from the prostate gland, and, after a residence in the bladder, that a coating of lithic acid might have formed upon them; I therefore examined the prostate per anum, but I found it small, I may say, atrophied, a condition by no means uncommon in very advanced age.

The case was thus rendered in every way clear, and the treatment necessary for the removal of these concretions was at once put into operation. The same catheter was repeatedly passed at intervals of three, four, or five days, according to the state of the bladder, and by injecting the bladder with warm water, many calculi were thus drawn off. On two occasions I flushed the bladder with six ounces of water, and, on suddenly withdrawing the instrument, the patient standing erect, four stones at one time, and thirteen at another, were *shot out* of the bladder with considerable force. Sometimes the calculi were too large to escape through the catheter, and remained sticking in the eye of the instrument. I recognized this occurrence by the diminution of the stream through the catheter, or by the difficulty of forcing the water into the bladder by the syringe. Whenever this happened, I carefully withdrew the catheter, pressing its convexity towards the perinæum, and thus often succeeded in bringing away stones of such a size as could not otherwise have been got rid of by the catheter. This was generally attended with some pain, and the discharge of a little blood. I prescribed a small quantity of carbonate of soda, and I never found any ill effects ensue. He passed upwards of twenty stones at home; these added to the sixty-two I have, make up eighty-two, and he says that twenty others must have escaped during micturition in the streets.

After ten introductions of the catheter he was entirely relieved of his symptoms, and I believe disembarrassed of all his renal concretions.

The calculi thus got rid of belong evidently to that class described in the catalogue of the Royal College of Surgeons, (Collection, page 25, A 171,) and are of the kind called by Dr. Prout pisiform. They are for the most part evidently composed of lithic acid, deposited in a distinctly lamellar form and presenting some variety of shade; in some there is a distinct incrustation of phosphate of lime, but they are

usually peculiarly free from this deposit. They vary in shape and size, but are all more or less rounded. Of their origin there can be little question: deposited and moulded in the calyces of the kidney, they passed without the least uneasiness through the ureters into the bladder, where, no doubt, an additional coating has been obtained.

I am of opinion that the plan employed in this case for the removal of these calculi, is far preferable to the use of forceps, however ingeniously constructed: for the catheter permits many to escape, and if they lodge in the eye of the instrument, the little force required in their extraction, more firmly fixes them, and enables the operator to withdraw them with comparative facility. I cannot help attaching much importance to the flushing of the bladder, as by this means many small calculi can be got rid of; this latter manœuvre cannot be so successfully applied in cases where the prostate is enlarged, but even here I think it may be used with great advantage in many cases, as it often happens that prostatic calculi are discharged *per vias naturales*, and without the aid of instruments; in the case just mentioned the state of the prostate was eminently favourable to this proceeding.

4, St. Helen's-place, January, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

FURTHER REPORT ON MR. COCK'S CASE OF PHARYNGOTOMY.

At the time of our former Report of this case, (see the *Medical Times and Gazette*, Feb. 9, page 135,) the patient, although out of danger, had not regained the power of swallowing. Since then the recovery has been completed, the wound having wholly closed, and the man being now able to swallow well. The closure of the wound has thus occupied about a month, and, during the first three weeks of this, all the nutriment taken was conveyed into the stomach by instrumental aid. It will be recollected that the operation was for the removal of a large artificial tooth-plate impacted in that part of the gullet where the œsophagus and pharynx join.

Cases in which operations similar to that performed by Mr. Cock are required, are so infrequent, that it may be well for us here to refer very briefly to those with the records of which we are acquainted.

Case 1.—In this case, probably the first in which œsophagotomy, for the removal of a foreign body, was ever practised, a French Surgeon, Goursand, of Limousin, extracted an impacted portion of bone, by incision on the left side of the neck. The patient recovered.

Case 2.—Of this case, in which M. Roland was the operator, we have no particulars.

Case 3.—In this, a boy aged 2 years and 3 months, was under Mr Arnott's care in the Middlesex Hospital, on account of the impaction of a large piece of bone in the throat. Repeated attempts at its removal having failed, and the child's health giving way, its parents consented to the performance of œsophagotomy four weeks after the accident. The operation was successfully accomplished, but death from pneumonia and diarrhœa followed fifty-six hours afterwards. The portion of the tube opened was about half-an-inch above, and the same length below, the cricoid cartilage (a).

Cases 4 & 5.—In these, which are given by M. Begin, in his "Memoir on Œsophagotomy," both the patients were adults, and in each the operation was for the removal of a portion of impacted bone. In one of them eleven days had elapsed since the accident, and in the other eight; in the former abscess had already occurred. Both patients recovered.

Case 6.—An adult man swallowed, during dinner, a large piece of bone. Urgent symptoms of impending suffocation followed. A treatment which consisted in repeated venæsections, more than sixty attempts to push the bone downwards, the use of levers, forceps, etc., for its extraction by the mouth, clysters of belladonna and injections of tartar emetic into the veins, was brought to an end on the fourth day by the performance of œsophagotomy. As soon as the gullet was opened the patient swallowed the bone. Death from gangrene of the pharynx and inflammation of the stomach and duodenum followed on the third day after the operation. The operator was Dr. Martini; and the case is recorded in the *Gazette Médicale* for May 31, 1845.

Case 7.—A man during a meal swallowed a large piece of boue which stuck in his throat. Great pain and much difficulty in swallowing followed. The use of various instruments, emetics, &c., were unavailing. On the sixth day severe hæmorrhage occurred, and it continued at times for several days following. The patient having been reduced to a state of extreme debility, and his life being in imminent danger, œsophagotomy was at length performed by M. Delavacherie, the surgeon attending. The œsophagus was found to have already given way. The bone was removed, and after much suppurative and constitutional disturbance, the patient at length perfectly recovered.—*Journal de Chirurg.* Nov. 1835, p. 337.

Remarks.—Œsophagotomy for the removal of foreign bodies is an operation the dangers necessarily connected with which are probably much less than those which belong to delay, and to the too-persevering employment of what would be popularly deemed "milder measures." Its dangers are, 1st, of hæmorrhage during its performance; 2nd, of sloughing of the wound; and, 3rd, of subsequent visceral inflammations. Of these, the two latter are more likely to occur if the impacted body be allowed to remain than after the operation, and can, therefore, scarcely be said to belong to the latter. In the hands of a good anatomist and careful Surgeon, no injury to important vessels or nerves ought to occur. In the two fatal cases mentioned above, death was in neither due to the operation. In Case 6, few will doubt that the preliminary measures, the unrestrainable vomiting, etc. which was excited, were the real cause of the gangrene of the pharynx. In Case 5, the child had shown symptoms of lung-complication before the operation, and we may fairly attribute the fatal event to the long delay which, in consequence of the parents' refusal to permit an operation, had taken place. It must be borne in mind also that, in not a few instances, in which no operation had been performed, death has occurred from the consequences (abscess, sloughing, etc.) of an impacted body in the gullet. While far from wishing to advise the resort to so difficult an operation, until all other suitable measures have failed, we cannot help remarking, that the very successful result obtained by Mr. Cock, by the plan of early operation, in the case before us, strongly encourages to a like boldness in similar instances.

(a) For an excellent account of this case, see Mr. Arnott's paper in Vol. XVIII. of the Medico-Chirugical Transactions, page 89.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASE OF THE SUPRA-RENAL CAPSULES.

(Continued from page 61.)

THE MIDDLESEX HOSPITAL.

CASES OF BRONZED SKIN, ETC.

(Communicated, with Remarks, by S. W. SIBLEY, Esq., Medical Registrar to the Hospital.)

The first of the following cases is a marked illustration of the connexion between bronzed skin and disease of supra-renal bodies; it will, perhaps, be thought more valuable, as it is transcribed from notes, taken at a time when I was not aware that any connexion between a brown condition of the skin and disease of the supra-renal bodies had been observed.

Case 1.—BRONZED SKIN—DEATH AFTER A FEW DAYS' ILLNESS—DISEASED SUPRA-RENAL BODIES.

(Under the care of Dr. THOMPSON.)

W. P., aged 20, formerly a painter, but now a baker, was brought to the Middlesex Hospital on July 11, 1854, and was admitted under the care of Dr. Thompson. The patient's friends had noticed that the colour of his skin

had been gradually changing for about six weeks, and that for a few days the change in colour had been more rapid. He, however, continued his work of baking up till Saturday, July 8. On Sunday, the 9th, he dined with some friends, and appeared in quite as good health and spirits as usual. On the following day, (the patient stated) he first commenced to feel languid and unable to move about. He felt some soreness in the throat, but had no rigors. On Tuesday, 11th, he went, in the afternoon, to the house of a friend, and threw himself on the sofa, saying that he was unable to move; he was then brought to the Hospital. Previously to this attack, he had always enjoyed good health; he was of sober habits, and had had abundance of good food.

On admission, July 11, 8 p.m.: the skin of a peculiar dark, dirty-brown colour; the conjunctivæ are of a similar colour; the skin is covered with a cold clammy sweat; the pulse scarcely perceptible; tongue clean; bowels generally regular, open with medicine this morning. He is restless, and only with difficulty answers questions, although he appears perfectly conscious.

On being placed in bed, warm fomentations, hot bottles, etc., were applied; brandy was administered; the pulse was partially restored. The bowels acted three or four times, the motions being dark and partly liquid. He stated that the only pain he had was deep-seated, and in the region of the liver. The same cold sweat continued, and he died at four a.m. the following morning.

Post-mortem examination.—Body extremely muscular and well-formed; rigidity extreme; the entire surface is of a uniform peculiar brown colour; there is slight lividity of the lips and back.

The brain and its membranes healthy. The lungs healthy, with the exception of some slight congestion. Pericardium firmly and universally adherent. The heart and its valves quite healthy.

Liver extremely tough and deeply congested. Bile in the gall bladder liquid, of a pale yellow colour. The whole of the solitary glands of the small intestine are enlarged, forming little solid eminences the size of millet seeds. At the lower end of the ilium there are two spots of superficial ulceration. Peyer's patches are not affected. The mucous membrane of the colon quite healthy.

The kidneys tolerably firm and healthy, of natural size. Both supra-renal capsules are enlarged, forming solid tumours of nearly half the bulk of the respective kidneys, but retain their characteristic form. They are firm and dense. On section they are composed of tubercular-looking material, *i.e.*, of an opaque yellow substance of the consistence of soft cheese. Portions of this substance appear to be tubercle, as seen in the brain, while other parts are soft and broken down, like the matter of a scrofulous abscess. In one or two places portions of the natural structure of the supra-renal bodies can be detected.

When this case occurred, I believed it to be an example of tubercular disease of the supra-renal bodies. This opinion was founded on the very close resemblance of the deposit to tubercle and to scrofulous matter, together with the fact of there being an affection of the intestine resembling tubercular disease. Against this hypothesis, however, there was the absence of tubercle in the lungs, and the circumstance that the deposit in the supra-renal bodies did not exhibit the usual microscopical structure of tubercle.

The mode of death of this patient was very remarkable: it is seen that up to a certain day he was able to follow his occupation; he then became languid, the following day he fell into a state of collapse, and died in the course of a few hours. These symptoms nearly resemble those of a person dying from what may be called shock to the sympathetic system, such as are observed in case of perforation of the intestine, or wound (without hæmorrhage) of the abdominal viscera. Although this fact does not throw much light on the nature of the disease, it appears to be clinical evidence of the close relationship of these bodies to the sympathetic nervous system.

The coincidence of brown discoloration of the skin and disease of the supra-renal capsule being established in a considerable number of instances, the most convincing method of testing the truth of the theory would appear to be: firstly, by collecting all examples in which the skin has assumed a brown colour, and then inquiring into what evidence there may be of affection of the supra-renal bodies; and, secondly, by analyzing all instances in which the supra-renal bodies have been found in an abnormal condition; and then inquiring into the state of the skin in those cases. In reference to the first question, the only case in which I have observed anything like the colour of skin mentioned in *Case* 1 is the following:—

Case 2.—BRONZED SKIN—RECOVERY.

(Under the care of Dr. THOMPSON.)

M. A. T., a married woman, aged 33, was admitted into the Middlesex Hospital, on April 8, 1855, under the care of Dr. Thompson. She had been in good health, and had had four children the last two years and a-half before, and from that time the catamenia continued regular till three months before admission, when they ceased, but returned again a few days before admission. She had been ailing for five weeks, and complained of paroxysmal pain at the lower part of the abdomen. She attributed her illness to an offensive smell in the house. When admitted, she was extremely pale and cachectic; rather thin, and of small stature. She complained principally of the paroxysmal abdominal pain.

April 12.—Yesterday evening she suddenly fell into a state of partial collapse; the skin becoming cold, the pulse very feeble. The skin has now quite altered in colour, and is of a peculiar dirty brown tinge.

This state of prostration continued for a few days, after which she slowly recovered, but remained in a state of extreme debility for many weeks; the colour of the skin slowly faded, and gradually assumed that which it was on her first admission, viz., the simple pallor of anæmia. She left the Hospital on June 5, rapidly gaining in strength.

The treatment consisted in stimulants during the period of depression, and subsequently sulphate of iron, with aloetic purgatives.

The close similarity of the symptoms of this patient to that of the first, together with the remarkable discoloration of the skin, entitles the case to a consideration with that of the first patient. Supposing Dr. Addison's theory to be correct, it is somewhat difficult to explain how a disease of the supra-renal body could be present to such a degree as to cause discoloration of the skin, and yet nearly complete recovery to take place. An inflammatory affection of these bodies might, however, explain the difficulty, but of this there were no constitutional symptoms.

Case 3.—CANCER OF THE SUPRA-RENAL BODIES WITHOUT BRONZING OF THE SKIN.

(Under the care of Mr. MOORE.)

With reference to the question, whether brown skin always accompanies disease of the supra-renal bodies, cancer is the only disease, with the exception of that mentioned in *Case* 1, that I have observed. Of this growth I have witnessed several examples, but I regret that owing to the imperfection of my notes, the exact number cannot be stated. In none of these, however, was any brown alteration of the colour of the skin observed, and hence it may fairly be concluded that there was no remarkable discoloration of the skin. In the following case there was great disease of both supra-renal bodies, while the skin presented only the usual sallowness of patients dying from cancer.

M. L., a female, aged 58, was admitted into the Middlesex Hospital, February 1855, under the care of Mr. Moore. Five years before admission she had a fit, but did not suffer from hemiplegia. Shortly after this she discovered a lump in the skin, about the size of a pea, to the outer side of the left nipple. It increased till nine months ago, when it was the size of a walnut, and ulcerated. After this the disease followed the usual course of a cancer; she became partly hemiplegic, and died.

Post-mortem examination—Body very much emaciated; surface pale and sallow. Extensive cancer of the skull was discovered, with softening of the left hemisphere of the brain. Several old apoplectic cysts were discovered in both hemispheres. There was extensive atheromatous disease of the cerebral arteries. Lungs quite healthy. In the liver two nodules of scirrhus cancer, each about the size of a pea. Kidneys healthy. The right supra-renal body was enlarged, and nearly converted into a mass of firm scirrhus cancer. A portion of the tissue of the body, however, remained unaffected by the disease. In the left there were several small nodules of the same disease. The lumbar glands were also affected.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

THE MARGATE ROYAL SEA-BATHING INFIRMARY.

TWO CASES OF BRONZED SKIN, ETC.

(Communicated by Dr. ROWE.)

The two following cases, for the particulars of which we are indebted to Dr. Rowe, the Resident Medical Officer of the Margate Infirmary, both tend to support Dr. Addison's opinions. In the first, although, unfortunately, no examination of the supra-renal organs was made, yet the kind of cachexia and the mode of death were very similar to what have been observed in most of the instances in which proof of disease in those bodies was afforded. Those who have read Dr. Addison's work, or followed our own Series, will, we think, deem it extremely probable that the wanting link of evidence would have been supplied, had it been looked for. The second case is complete, and in every way confirmatory of the views in question.

BRONZED SKIN — HYPOCHONDRIASIS AND DEBILITY—DEATH—AUTOPSY.

(Under the Care of Mr. HOFFMAN.)

John Warrington, a carter, married, and father of several children, aged 45, was admitted into the Sea-bathing Infirmary, under the care of Mr. Hoffman, May 15, 1855; has always enjoyed robust health, and is of temperate habits, etc. Five months ago, he fell from an inconsiderable height, and injured his left knee, which afterwards became swollen and painful. For this he was subsequently under treatment in the Radcliffe Infirmary, Oxford. Latterly the pain has returned, and rendered him unable to pursue his avocation.

On admission, he was observed to be above the average height, muscular, and inclined to be stout; to have black hair and dark-brown eyes: the skin of a remarkably dusky-brown tint, not unlike a mulatto, the colour varying in intensity in different parts, being of a deeper tint round the mouth, on the lips and temples, neck, axillæ, knuckles of the hands, mammary areolæ, umbilicus, penis, scrotum, and perinæum; of a lighter tint on the chest, under aspect of arms and legs, backs of hands; and on the rest of the body, to be of a pale-brown colour.

Previous to the change of colour he was a dark-complexioned man. He states that the change commenced about two years since, first affecting his tongue, which became of a dark purple tint, but now presents a curious mottled appearance, and is, he states, getting gradually paler. He then noticed numerous specks or spots of a dark tint, sprinkled over the surface of the body. These changes were attended by no feeling of illness or discomfort.

He appeared to suffer but little from his knee, which was free from disease; but soon after admission complained of loss of power, became hypochondriacal, and his health generally failed. On the 26th, his stomach was irritable, and he had lost all desire for food. On the following days there was incessant vomiting and hiccough, and on the 30th he became delirious and partially insensible, answering questions with great difficulty, and on the following day died, the hiccough and vomiting continuing, in spite of the remedies used. During the last four days his body and breath exhaled a peculiarly disgusting and penetrating odour. His memory had been observed to fail for some months, and his disposition to be kinder than formerly. The urine contained no albumen.

Post-mortem twenty-seven hours after death.—Considerable rigor mortis. Body well formed, with considerable deposit of fat about the integuments, and of the colour as described above. Considerable congestion of the scalp. Dura-mater normal. Arachnoid thickened and opaque, especially over the posterior sub-arachnoid space. Grey matter of the brain paler than usual; great deficiency in the normal elasticity and consistence of brain, as evidenced by the convolutions falling widely apart when the membranes were removed. Unnatural softness of the whole of the brain and cerebellum. Pericardium and heart healthy. Old adhesions on the right pleuræ; an unusual amount of carbonaceous matter deposited in the pulmonary glands. Tubercular deposits in various stages of development in the apices of both lungs, surrounded closely by hepatized lung structure. Liver and other viscera healthy. Kidneys imbedded in a large quantity of fat, and appeared to be healthy, with the exception of slight congestion of the tubular structure. The renal capsules were unfortunately not examined.

In the following case attention was especially paid to the state of the supra-renal capsules, as Dr. Addison's monograph had in the meanwhile been perused.

BRONZED SKIN WITH CACHEXIA—EPILEPSY—DEATH—DISEASED SUPRA-RENAL BODIES.

(Under the care of Mr. H. CURLING.)

C. Burke, aged 20, was admitted into the Infirmary, March 24, 1855, under Mr. H. Curling, for strumous disease of the left knee-joint, having previously been under treatment in St. Bartholomew's Hospital. On admission, the general brown tint of the skin was immediately noticed, and several small spots, fewer in number, but of a deeper tint, than in the last case, were observed. He states that his health has always been delicate, and that the darkening of the skin came on at the commencement of the year, while in St. Bartholomew's Hospital. His general health gradually improved until August 2, when he had an epileptic fit, having suffered from diarrhœa the two previous days. The epileptic fits became frequent, attended with incessant vomiting. On the 3rd he was violently delirious for two hours, and on the 4th died in a semi-comatose state. The dark-brown colour of the skin had materially deepened in tint during the three or four weeks immediately preceding his decease, and a disgusting odour, of the same nature as in the former case, was exhaled from his breath and skin.

Post-mortem appearances 24 hours after death.—Body well formed and plump; thick layer of fat under the integuments; rigor mortis well marked. Skin generally brown, but of a darker tint over the stomach, axillæ, back of the hands and neck, and over the scrotum quite black. Immediately above the right clavicle two black points were noticed, the size of millet seeds, slightly elevated, and of a dark sepia tinge. About a dozen smaller spots scattered over the face, and several well marked on the legs. Brain paler than usual, and rather soft, especially the middle lobes. Heart flabby, a large, loose, fibrinous clot, extending into the left pulmonary artery. Lungs and abdominal viscera healthy. Kidneys of a natural size, and paler than usual. The supra-renal capsules were atrophied, and consisted of a cheesy, gritty, semi-purulent deposit resembling tubercle.

JONATHAN HUTCHINSON.

(*It is intended to conclude this Series next week.*)

NOTE.—PROVINCIAL HOSPITAL STATISTICS.—Our next Report of Statistics of Operations in Provincial Hospitals will comprise the last *Six* months of 1855. Those of our contributors who have not yet completed their returns for that period, will oblige by doing so as early as convenient.—J. H.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 92.—TREATMENT OF AGUE BY IODIDE OF POTASSIUM.

[*To the Editor of the Medical Times and Gazette.*]

SIR,—Ever since I have resided in this village (now for five years) I have been dissatisfied with the usual treatment of ague by quinine, as in some cases the disease yielded to that remedy and in others it did not; but I could think of no other treatment likely to be successful, though I tried many, including arsenic, till some three years ago I read in a number of the "Medico-Chirurgical Review" (I forget which) that the German Pathologists considered that the congested spleen (ague cake) was the cause and not the effect of the disease, and I remembered that Dr. Williams had written on the efficacy of bromide of potassium in such a lesion; but, not having that drug in my surgery, I determined to try the iodide of potassium instead in the next case of ague that came before me, intending, if that failed, to procure the bromide;

but, I am happy to say, that I have used the iodide of potassium now in considerably more than one hundred cases, and have never yet failed in curing the disease very quickly. In some cases, where the disease has been of long standing, and the patient very much reduced, I have added a grain or two of quinine to each dose of the iodide of potassium; but my general prescription has been for an adult:—

℞ Potas. iodid. ʒiss.
Aquæ menth. pip. ʒxij. M.
Coch. mag. ij., quartâ quâque horâ sumend.;

so that there could be no doubt what was the cause of the cure. In proof of the value of this remedy I will only mention one case out of all I have thus treated.

Mrs. Smith, aged 50, sent for me early last month, having suffered from tertian ague off and on since September; not being in very good circumstances she went to the clergyman's wife of the parish in which she resided, who very kindly gave her some quinine, telling her it was no use going to the Medical man, who *must* give her the same remedy. However, not getting well, she sent for me. After hearing what I have related, and finding that she had a tolerable pulse, her bowels open and motions healthy, with a clean tongue, I sent her nothing but the above mixture, and she never had a return of the ague after the second day she took it.

I shall be very glad if, by inserting this letter, other Medical men will try this remedy and report to you their experience of it. I am, etc. Edward F. Sankey.

Beckley, Sussex, February 18, 1856.

No. 93.—Gallic Acid in Cholera.

Sir,—Have any of your readers tried gallic acid in Asiatic cholera, or heard of its being tried, and with what result? I shall feel much obliged for their replies. I am, etc.
W. W. Morris.

No. 94.—Liquor Opii Muriaticus.

Sir,—I have made this solution according to the formula communicated by Mr. Shaw to "A Constant Reader," and would beg to caution those who prepare it, from adding the acid to the opium, before having previously mixed either one or the other with the water; for by so doing a violent effervescence takes place with the disengagement (apparently) of chlorine gas; the froth is very persistent, fills the whole bottle, and runs over; is very unmanageable and corrosive; does not subside for days; and a large amount of caloric is evolved. I would suggest "muriaticus" in place of "muriatis" in its title, as opium is not a base. I am, etc.
Gildersome. W. W. Morris.

ANSWERS.

To Query 88.—Spiritus Terebinthinæ in Convulsions.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I have repeatedly used the oil of turpentine in the convulsions of children,—where these were of an eccentric character, and dependent on some remote irritation, with the very best effect,—combined with castor oil, and generally a drop or two of ol. menth. pip., for the purpose of disguising the oil of turpentine. The formula I have adopted for infants, from 3 to 12 months old, is—

℞ Ol. terebinth. m. xx.—xxx.
Ol. ricini ʒij. ad ʒiij.
Ol. menth. pip. gtt. ij.
Syrup. simp. ʒix.
M. Sumat. cochl. min. j. omni semihorâ vel horâ.

The general result has been free evacuation of the bowels, subsidence of the convulsive movements, and restoration of consciousness, with increased activity of the pupils in a short time. Where irritation was produced by teething, the gums were freely lanced, and the warm bath was employed in all the cases.

In one case of uræmia following scarlatina, in which convulsions were very severe, I employed the same treatment, the doses being larger, as the patient was five or six years of age. I think your Correspondent, "Juvenis," will not be disappointed by this treatment, provided he employs it in cases where the convulsions are produced by remote irritation, either of the gums or the intestinal canal.

I am, etc. Philip B. Ayres, M.D. Lond.
Wandsworth-road, Feb. 13, 1856.

To Query 88.—Spiritus Terebinthinæ in Convulsions.

Sir,—In answer to Query 88, I beg to inform "Juvenis" that during the past week I have administered spiritus terebinthinæ as follows:—

℞ Sp. terebinth. gtt. xxxvj.
Liq. potassæ gtt. x.
Mucilaginis ʒss.
Syr. pap. alb. ʒi.
Aquæ q.s. ut fiat ʒiss.
M. ʒi. quater quotidiè—

to an infant six weeks old, suffering from convulsions, which seemed to depend upon depraved nutrition from a disordered state of the mother. They occurred continually for four days, as many as twelve in the hour, with an occasional intermission of two hours, not yielding to carminatives, aperients, the warm bath, and cold douche to the head. While taking the above mixture for twenty-four hours, the convulsions diminished in number and intensity; after which time I administered ʒij. sp. terebinth. with a little oil and gruel, per rectum, and the child has been since quite free from any convulsive action. I am, etc.
Potter Lenton, Leeds. J. B. C.

P.S.—I ought to add, that from the first I requested the mother to give up suckling.

Medical Times & Gazette.

SATURDAY, FEBRUARY 23.

NEW MEDICAL REFORM BILL.

The New Medical Reform Bill, to which we have previously adverted in these pages, was read a second time in the House of Commons on Wednesday last, and has been ordered to be committed on the 2nd of April. We must not induce our readers and the public in general to imagine that, because the Bill has passed its second reading, it is by any means likely to pass into a law, at any rate in its present shape. If we were to hold out such a prospect, we should be guilty of great deception. In fact, although the main features of the measure are very commendable, and are marked by a desire to conciliate all sections of the Profession, there are a multitude of details which will require the closest attention before they can be satisfactorily arranged. Some of the parties who are probably designed as office-holders under the new enactment, do not by any means possess the confidence or support of the Medical Profession; and it may be added that, as we hinted some time since, the efforts to conciliate all parties have terminated in pleasing but few. We believe that we are correct in stating that the Bill will be opposed by the Royal College of Physicians of London and the Royal College of Surgeons of England; and we very much doubt whether the Scotch and Irish Colleges are by any means unanimous in supporting it. The members of the Profession generally, partly perhaps from weariness of the whole subject, and partly from distrust of the parties who have been promoting the present measure, have hitherto viewed the matter with languid indifference; and it is certainly undesirable that the Bill should be hurried through Parliament before its provisions are known and its results calculated.

But while thus pointing out the difficulties which the Bill has yet to encounter from those whose advice it is desirable to take, and whose objections ought fairly to be weighed, we cannot but regard with utter ridicule the opposition which the measure has encountered from the Quack fraternity. Lord Robert Grosvenor, who like Dogberry seems anxious to be written down an "ass," quakes for the fate of the Homœopathists under the proposed new system, and is nervously afraid

that the globulistic humbug will be exploded under a fair system of Medical Registration.

As the above-named very silly and mischievous nobleman commands, from his birth and family, much more influence than he is entitled to by his talents or his discretion, it becomes necessary to expose his absurdities with more severity than would be necessary in the case of a less prominent personage. Lord Robert Grosvenor informs the House of Commons that barristers and solicitors ought to be subject to control, and to registration, "because law is an exact science!" In the name of common sense, where, and how, and when, did Lord Robert find law to be an exact science? When every person possessed of a grain of common experience, or of common sense, knows to his cost that law is the most fluctuating and the most uncertain of human sciences—if it can be called a science at all. We are told by this nobleman that it possesses a property of exactness common to it with mathematics! Again, the same authority informs us, that the Homœopathists are as honest as scientific, and more successful than the members of the Medical Profession. It is true that this statement was too much even for the House of Commons, who received it with shouts of derision; and we can only suppose that the Members had not forgotten (although Lord Robert Grosvenor probably had) the action of the Homœopathist against the Milkman, for recovering large charges in pretending to cure a fatal disease by flint-water; and the still more recent cases, where a number of unhappy paupers were allowed to die from attacks of acute disease, while a Homœopathist was trifling with their miseries by the administration of globules of innocuous trash. Truly if such be the specimens of honesty, science, and success, relied on by Lord Robert Grosvenor, we heartily wish him joy of his friends, while at the same time we seriously assert, that he is wholly incompetent to form a correct idea of what is, and what is not, honesty, science, or success.

We have not the slightest doubt that the Homœopathists having presented their case to the House of Commons, the whole race of the other quacks will tremble for their gains, and petitions will be poured in from Coffinites, venders of Morrison's pills and of Holloway's ointment, and from all the other traders upon the credulity of human nature, against a measure which defines who are educated practitioners of medicine, and who are uneducated impostors or renegades from the professional ranks. Our political contemporary, the *Daily News*, which usually advocates the cause of the Medical Profession, has lately printed a piteous letter from Dr. Epps! against the Bill. As this learned Doctor has very good reasons for denouncing all the existing Medical Colleges, he will, no doubt, receive the support of his brother Homœopaths in his resistance to the present Bill, or any other Bill to regulate the *Medical Profession*. But how the House of Commons should listen to Lord Robert Grosvenor upon a Medical question, or how the *Daily News*, generally so well-informed in Medical matters, should insert letters from Dr. Epps upon the same subject, is to us a matter of astonishment. It cannot be too well known that the Homœopaths, although retaining the titles belonging to the Profession, have virtually excluded themselves from its pale by their avowed abjuration of its doctrines; any measure, therefore, intended for the internal government of the Medical world can have no reference to those apostates, as their status cannot be affected by any changes in existing legislation.

THE POOR-LAW SURGEONS.

It must be a subject of universal satisfaction that the noble efforts of Mr. Griffin in behalf of that most ill-used section of our fraternity, the Union Surgeons, have been very generally appreciated, and, in many instances, responded to in a most gratifying manner. We understand that forty-two Unions, representing upwards of 200 Medical men, have already sent in their adhesion to the common cause, and others are daily being added to the list. While we are writing, we learn that a meeting was held at Reading, on Wednesday last, comprising the Medical Officers of nine unions, and we trust that other extensive unions will follow the example.

We must again urge upon the Poor-law Medical Officers throughout the country the necessity of activity at the present moment. The Parliament has now assembled, and our legislators are willing to hear the complaints of members of our Profession, whose wrongs are at last recognized, and whose title to redress is at length acknowledged. We must also urge the absolute need of great numbers in carrying out this important work; for, if we all join heart and soul in the cause, it will be impossible for Boards of Guardians, or the Poor-law Board, or the Houses of Parliament, to resist our demands. The reason why the Union Medical Officers have been so long oppressed has been mainly owing to the culpable apathy of their own Professional brethren, and, what is still worse, to that miserable spirit of selfishness which sometimes induces one Medical man, not only to accept, but to sue for an office which his predecessor has abandoned in disgust, or from which he has been removed.

We believe that a meeting of all the Poor-law Medical Officers throughout the country will shortly be called, and we hope that the assembly will be one which will do honour to the Profession by its numbers and unanimity, and which by its firmness and its energy will accomplish the great object in view. In the mean time, we would observe that Mr. Griffin is exposed to great and necessary outlay in the progress of his exertions, and that a few additional subscriptions will in some measure secure him from pecuniary loss, and help to promote the general welfare of the Poor Law Surgeons.

THE WEEK.

We congratulate the Vestry of St. Marylebone, upon the election of Dr. R. Dundas Thomson, as Medical Officer of Health to that extensive and populous district. While the election was pending, we forbore to press the claims of any candidate upon the attention of the electors; and, while generally advocating the propriety and the necessity of appointing gentlemen of superior talent to the responsible offices lately created, we have refrained from espousing the cause of any persons in particular, from an apprehension that our aims and objects might be misunderstood. Now that the contest is over, however, we can have no hesitation in expressing our extreme gratification at the result; and we rejoice to find that the somewhat obstinate effort of a certain portion of the Vestry, to appoint a candidate on mere local grounds, has been defeated by the good sense of the majority. One of the Morning Newspapers is disappointed at the result, and accuses the Government of using undue influence with the Vestry; we can only express our disbelief that the Government has interfered at all, and even if it had done so in the present instance, it would have deserved the thanks of the community.

A very melancholy case of Poisoning by laudanum has just occurred in the Military Hospital at Chatham. It seems that some purgative medicine, containing infusion of senna, was ordered for two privates, but the Medical Officer poured out by mistake, six ounces of tincture of opium, which were divided into two portions, and immediately administered to the two invalids; the bottle containing the laudanum was said to be without a label. As symptoms of poisoning rapidly exhibited themselves, another Assistant-Surgeon was sent for, who

ordered some stimulants, but, thinking the patient was in a fit, he did not take any active measures to restore him. At the inquest held upon the deceased soldier, the Coroner's Jury returned a verdict of manslaughter against the two Assistant-Surgeons, and they were forthwith committed to Maidstone Gaol. The whole of the circumstances of this painful affair will, no doubt, undergo a thorough investigation.

Another horrible assassination has been perpetrated during the week, a girl aged 14 having been found with her throat cut in a cellar, and a woman living in the same house, supposed to be her mother, having been committed, on strong evidence, for her wilful murder. No adequate motive has yet been assigned for the dreadful deed, and the prisoner has exhibited no traces of mental aberration. Truly it would appear as if there were now prevailing an epidemic of homicidal mania, so quickly do these bloody tragedies succeed one another, each one more horrible than its predecessor. Reflecting upon the cases which have lately occurred, and are still occurring, we might imagine that the description of the "iron age" by Ovid was written with a prophetic inspiration to be applied to our own times, so vividly are we reminded of acts which would disgrace an era of barbarism, but which are passing as it were in all their naked reality before our eyes. Whether the necessary cruelties of war have induced an indifference to the effusion of blood, and have changed for a time the natural dispositions of mankind, we cannot determine; but the reiterated instances of murder recorded in the daily Press, exhibit a recklessness of human life which is perfectly appalling, and which indicates a deep and turbulent under-current, beneath the smooth and polished face of modern society.

"Jamque nocens ferrum, ferroque nocentius aurum
Prodierat: prodit bellum, quod pugnat utroque;
Sanguineâque manu crepitantia concutit arma.
Vivitur ex rapto. Non hospes ab hospite tutus,
Non socer a genero: fratrum quoque gratia rara est.
Imminet exitio vir conjugis, illa mariti;
Lurida terribiles miscent aconita novercæ;
Filius ante diem patrios inquirit in annos.
Victa jacet pietas; et virgo cæde madentes
Ultima cælestûm terras Astræa reliquit."

The Commission appointed to inquire into the Dublin Hospital Grants have at length made their report, and on the results so far we congratulate the parties concerned. The Commissioners recommend the continuance of the Grants to the amount of £16,000 a-year; and two of the minor institutions—the Combe Lying-in Hospital and St. Mark's Ophthalmic Hospital—are included for small sums, while the rest is to be distributed among those Hospitals which have long and most worthily been the recipients of this public benefaction.

REVIEWS.

A Narrative of the Siege of Kars, and of the Six Months' Resistance by the Turkish Garrison under General Williams, to the Russian Army. By Humphry Sandwith, M.D., Chief of the Medical Staff. pp. 348. London: 1856.

The Siege of Kars will ever be remembered in the annals of war as one of the most extraordinary incidents in history, and the name of General Williams, its heroic defender, will be handed down to posterity as one of the brightest ornaments of the British army. While this brave officer is still a captive in the Russian territories, Dr. Sandwith, who was released by General Mouravieff, has returned to England, and has given in the present volume a most interesting account of the memorable siege, which terminated, as is well known, in the capitulation of the city, and the surrender of the garrison to the Russian army. The horrors of this scene of protracted misery—the starvation of men, women, children, and horses—the outbreak of cholera among the famished troops—the desperate energy of the wretched soldiers, enduring to the last—all these dreadful details are presented to us by Dr. Sandwith's graphic pen with the fidelity of an eye-witness. The admirable qualities which distinguished General Williams, both in his military and administrative capacity, are brought fully into notice in this spirit-stirring narrative; and we scarcely know whether we should admire most his untiring zeal and activity in defending the city, in disposing his forces, and in repelling the attacks of the enemy, or in studying the welfare of the troops, in providing for their support, and in arranging their Hospitals.

Dr. Sandwith's connexion with the East is not of very recent date; he visited it first in 1847, and again in 1849, and since the latter period he never left it until after the fall of Kars. He is, therefore, thoroughly well acquainted with the country, and with the language, customs, and peculiarities of the natives. He presents us with a melancholy description of the wretched misgovernment of a great portion of the East, and makes us lament that the valour of the soldiers, and even the resources of nature, are made almost valueless by the imbecility and the knavery of the rulers of the land.

Although this work is written by a member of our Profession, the author evidently avoids entering into any Medical details; and although he modestly regrets that the task of describing the siege had not fallen upon the brave general or upon some other military officer, he has yet presented us with a volume which will be read with intense interest throughout the civilized world. He is evidently a scholar, is well acquainted with natural history, fond of adventure, careless of danger, and has a decided taste for military exploits. His description of the repulse of the Russian Army from the fortifications of Kars, is depicted in the most vivid colours, and the alternate advances and retreats, and final repulse of the besieging host, with the desperate acts of valour performed on both sides, are recorded with a degree of graphic power, which proves that the author must have narrowly watched all the details of the mortal struggle. No less powerfully written is the description of the miseries endured by the troops and the inhabitants of the doomed city; the children dying in the streets of starvation, the soldiers perishing listlessly from the same cause in the Hospitals; the horses dropping down dead from want of provision, or slaughtered to make soup; the men standing to their posts till their legs are unable to sustain them; the atmosphere reeking with the fumes proceeding from putrefying carcases; and even the dogs, so numerous in Turkish cities, inadequate in number to devour the mangled and perishing remains! Such are the horrors of war! Horrors aggravated tenfold by the criminal neglect of the authorities at Constantinople, who made no effort to relieve this devoted army.

If our limits would allow, we should draw largely from this most admirable work, which reflects the greatest credit upon Dr. Sandwith; but we are confident that the public will read it for themselves, and no brief extracts could give a fair idea of the merits of the author. As we have just remarked, Medical details are but little touched upon; but it is lamentable to find, in the description given of the Turkish Military Medical service, the same amount of ignorance, incapacity, and fraud, as is exhibited in too many other departments of the Ottoman Empire. Physicians with little education, Surgeons with none at all, Apothecaries, cheating the army and enriching themselves,—such are the elements of the Medical department of the Turkish service. The Medical officers are treated with contempt by their military superiors, and perhaps many of them deserve to be so treated; yet Dr. Sandwith informs us that instances are not wanting among the Turkish Medical officers, of zeal and devotion to the sick and wounded troops. Dr. Sandwith rather bitterly remarks that the British and Turkish services resemble one another, at least in one respect, viz., in the ignominious manner in which the Medical department is treated.

We need write no more in commendation of Dr. Sandwith's work, than to express our gratification that so interesting a volume should have proceeded from a member of our own Profession.

FOREIGN CORRESPONDENCE.

MEDICINE IN SWEDEN.

PROCEEDINGS OF THE SWEDISH SOCIETY OF PHYSICIANS.

Having recently received from the Swedish Society of Physicians two Volumes of their Transactions, reprinted from the *Hygiea* (a), I shall endeavour, in fulfilment of a promise formerly made (b), to extract therefrom some of the more important matters brought under the notice of the Society, in the hope that they may not prove uninteresting to the readers of the *Medical Times and Gazette*. The Society meets every Tuesday during the winter, with the exception of a recess at Christmas; in summer the meetings are held only once a fortnight. A most useful feature of their proceedings is the discussion at the commencement of every meeting of the "constitutio epidemica" which may have prevailed since they last assembled, and an imitation of this custom by other Medical Societies is much to be desired, as it would place on record a large amount of information which is now lost, and would enable us to ascertain, by comparing the reports from different countries, to what distances epidemic influences usually extend, or what points of resemblance or dissimilarity they present in various localities at the same time.

As an example, we may take the statement at the opening of the first meeting, reported in the volumes mentioned above, that namely for the 12th October, 1852: —

"Constitutio epidemica for the last two weeks:—Sickness increased. The most prevalent affections have been gastric and nervous fevers and diarrhœas; secondly, ague, catarrh, pneumonia, and rheumatism; the less common have been sore throats, hooping cough, and scarlet fever; in addition to which there have been scattered cases of small-pox, chicken-pox, erysipelas of the face, and cholerine. The prevalent nervous fevers have all presented an abdominal character.

"In the Seraphim Hospital gastric and nervous fevers and some cases of ague. The number of patients in the Hospital on the day before yesterday was 251, of which 152 were in the Medical and 99 in the Surgical wards.

"In the Garrison Hospital, severe nervous fevers and some cases of pneumonia and ague.

"In the Provisional Hospital, the number of sick amounted, at the close of last week, to 100, of which 13 had small-pox; at the close of the preceding week, the total number was 109, of which 12 laboured under the same disease.

"The Lying-in Hospital was healthy.

"In the Great Orphan House there was little sickness; there was some catarrh among the elder, and some diarrhœa among the younger, children.

"Among the poor, nervous fevers, catarrhs, diarrhœa, hooping-cough, and pneumonia.

"In the prisons,—ague, diarrhœa, and nervous fever."

In addition, the members frequently bring forward their individual experience, and interesting discussions often ensue.

The Society watches closely the progress of Medical science in Europe and America, and original papers of much interest are frequently read by the members. Some of the latter communications I shall now endeavour to bring under your notice:—

NECROSIS AND DETACHMENT OF THE CRICOID AND ARYTÆNOID CARTILAGES.

Herr V. Lundberg exhibited the larynx of a man, aged 33, who after having had last winter symptoms of congestion of the brain, especially of its right side, in the course of which amblyopia very suddenly set in, but soon disappeared again, leaving only weakness and uncertainty of vision, had in May been attacked with meningitis, passing into insanity. Herr Sondén was then called in, and the state of the patient's mind gradually improved, so much so that he was moved to the country, and underwent a course of bathing. While staying there, he at times complained of hoarseness, and this also occasionally attacked him later in the summer, while at Strömstad using sea-bathing, which otherwise appeared to agree well with him. It was not until September 27, or 28, that Herr Lundberg saw him again. He now complained of shortness of breathing, and was found to be labouring under inflammation of the windpipe; the inspirations were particularly difficult, expiration was less distressing; the chest did not appear to be affected. The course of the disease was rapid, and the man died on the seventh day after he had again come under Herr Lundberg's observation. On post-mortem examination, no remarkable signs of inflammation were found in the larynx, but the cartilages already mentioned were necrosed, and were so loose that, if the patient had coughed violently, they would certainly have been brought up. The brain itself exhibited no changes, but the arachnoid was in a state of chronic inflammation.

To a question by Herr Malmsten, if the patient had syphilis, Herr Lundberg answered that he certainly had been under his care five or six years before for that disease, but that he had never since shown the least sign of it. No exostoses were observed at the autopsy.

Herr Sondén, who had not seen the patient until the month of May, observed that his voice was then clear and unaffected. The hoarseness had not come on until he began to bathe, and it increased in proportion as the mental affection diminished, and became so considerable, that even then it was necessary to employ leeches and blisters. The patient had not suffered from a mental disease, in the strict acceptation of the term, but from occasional attacks of delirium, such as depend on chronic inflammation of the membranes of the brain.

Herr A. Retzius observed, that the preparation exhibited the remarkable fact of a disease in the very substance of the cartilages. The cartilages, especially the cricoid, were so swollen that they had almost lost their form, and a foreign matter seemed to have been deposited in their structure. The disease might be called an enchondritis.

Herr Carlsson thought there was no reason to suspect the presence of syphilis in this case, as many years had elapsed since the occurrence of the primary affection, without the appearance of any secondary symptoms; and it is, moreover, contrary to experience that syphilis should attack cartilages, without having first affected the bones or the mucous membranes.

Herr V. Lundberg had consulted several authors in reference to the preparation exhibited, who said they had seldom seen necrosis of the cartilages of the larynx, except in connexion with syphilis or phthisis. No trace of the latter disease was found in the present case. He observed that the man presented, in addition, a considerable hypertrophy of the thyroid gland, which, however, had not manifested itself by any symptoms during life.

At the meeting of the 9th of November, Herr A. Retzius exhibited the larva of an insect, sent in by Dr. Ekman, of Ystad, which had been, with eight others of a similar kind, expelled by vomiting from the stomach of a servant-man in the neighbourhood of Helsingborg. Dr. Appelgren had sent the specimen to Herr Ekman; it belonged to the genus Pyralis, and it was stated that the patient had, for some time before getting rid of the larvæ, been troubled with dyspeptic symptoms. Herr Retzius remarked that Linnæus, in his *Fauna Suecia*, p. 351, says of the Philæna Pyralis Pinguinalis, that "habitat in domibus, victitans pinguibus, butyro, in ventriculo humano larva pessima expellanda infuso Lichenis crematilis."

Herr A. Retzius also showed a tumour as large as a small walnut, which had been passed *per anum* by a child. It was covered with the mucous membrane of the intestinal canal with its glandulæ, and was considered by Herr Retzius to be an hæmorrhoidal tumour which had separated from its pedicle (c).

Herr A. Retzius then exhibited the pelvis of a woman who had been admitted into the Seraphim Hospital in a hectic condition, and labouring under coxarthrocacia of the right side. The right side of the pelvis was atrophied, and anchylosis had commenced in the sacre-iliac symphysis. The lower extremity of the same side was also in an atrophied condition, and Herr Retzius remarked that this preparation corroborated the opinion often before expressed in the Society,

(a) Förhandlingar vid Svenska Läkare-Sällskapets Sammankomster från och med Octob. 1852, till och med Dec. 1853, and från och med Dec. 1853, till och med Sept. 1854. Stockholm: Joh. Beckman. 1854-55.

(b) Medical Times and Gazette, October 21, 1854. p. 424.

(c) A similar case of the spontaneous detachment and expulsion of a rectal polypus is recorded in the Dublin Quarterly Journal of Medical Science, Vol. XI. p. 223.

that obliquities of the pelvis frequently depend on atrophy of either extremity.

At the meeting of November 23, Herr Santesson presented to the Society a woman aged 38, who had suffered from phosphorus-necrosis in the upper maxillæ, and he communicated the following history of her case:—The patient, of tolerably good bodily constitution, but cachectic appearance, was under treatment for the space of a month during the preceding spring in the surgical wards of the Seraphim Hospital, for necrosis in both superior maxillary bones. She then stated that she had been engaged since the year 1844 in a lucifer-match manufactory in Stockholm, where her duty consisted in dipping the sticks. She was thus occupied in the same room in which the matches were subsequently dried. Though she had been employed in this manner for many years, she had not observed any alteration in her previously good health until the fifth year, when she first began to feel languid and weak, to have mists before her eyes, and to suffer from loss of appetite. But as she, notwithstanding, persevered in her work, her symptoms gradually increased, until she was obliged in spring to leave the factory in consequence of debility. Until about two years before, her teeth were perfectly sound, but she then began to feel tenderness in the upper row, and at the same time observed that the teeth, from being white, by degrees altered in colour, and became ash-grey. The gum at the same time began to wrinkle, to separate from the alveoli, and to contract towards the upper lip. Some time after, a small abscess formed over the right eye-tooth, which subsequently opened, and from which pus was from time to time discharged. In the commencement of the present year (1852) she began to lose her teeth, of which the first pair of incisors first fell out. On her admission into the Hospital at this time, the second pair of incisors, a canine tooth, and the first pair of molars, all of which were loose and rattling in her mouth, impeding both speech and mastication, were removed. A part of the edge of the alveolar process was, at the same time, likewise taken away, but without embracing all the affected part. During the course of the summer the disease progressed, so that when she was admitted for the second time into the Hospital, on the 21st of September, it was found, on inspection of the cavity of the mouth, that, in addition to the above-mentioned loss of teeth, the greater part of the alveolar process of both the superior maxillary bones was necrosed. The gum felt hard and shrivelled and presented a pale appearance. The breath was offensive, and the discharge from the diseased parts was considerable. Resection of the affected bones was performed on the 4th of October, when the anterior part of the horizontal portions of the upper maxillæ, and a portion of the septum nasi, were removed, exposing the inferior spongy bones and both antra Highmoriana. Herr Santesson intended, at some future time, when the granulations should have filled up as much as possible, to apply to a mechanical Dentist for the purpose of procuring a hard gum for the patient. He referred to a case of phosphorus-necrosis in the lower jaw, which he had about two years previously brought before the Society, and to the history of the disease he had then given; he had recently seen in the fourteenth volume of the "Dublin Quarterly Journal of Medical Science," an article on this subject by Mr. Harrison, who had observed in a large lucifer-match factory, in the neighbourhood of Manchester, 14 cases of this disease, and he (Herr Santesson) remarked that, in the case under consideration, a chronic poisoning, manifesting itself in impaired digestion, weakness and numbness of the extremities, seemed to have preceded the local affection; also that nature did not in this case of necrosis, as she usually does in others, attempt any reparative process with a view of replacing the lost parts.

Herr Ekströmer remarked, that it was likely that less care was taken at the lucifer-match manufactories in Stockholm, as two cases of necrosis had already occurred there, while, according to Herr Sköldberg's report, in the great factory in Jönköping, where about three hundred persons, mostly children, are employed, the manufacture under consideration did not seem to have any injurious effect upon the health.

Herr Sprinchorn mentioned that amorphous pulverulent phosphorus had recently been introduced into commerce, and was said to be both less dangerous in the way of causing fire, and less injurious to the health than the ordinary kind. The mode of preparing it is still kept secret.

Herr Carlsson had not seen the factory at Jönköping, but he suspected that its favorable sanitary condition depended on judicious preventive measures, as washing, defined and shorter hours for those departments of the work which are regarded as most injurious to the health, due ventilation, etc.

Herr Santesson remarked that Mr. Harrison states that the sickness was diminished from the time the drying room was isolated, and consecutive employment in dipping the sticks restricted to two hours. It is remarkable that many people can work for a number of years in the factories without being affected with the disease, and that those who previously had bad teeth appear to be most liable to it.

Herr Ekströmer promised to procure for the Society, from Herr Sköldberg, some further particulars of the manufactory at Jönköping.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Edinburgh Correspondent.)

EDINBURGH, FEBRUARY 9, 1856.

HAD your Edinburgh Correspondent the descriptive powers of some of the Crimean Correspondents of your political contemporaries, we could, I think, give you a good and satisfactory reason for being absent from the meeting of the Medico-Chirurgical Society on the 6th instant, and again procuring our information at second-hand.

After the hard work of district-visiting on a day which, though not cold, was blustering and showery, toiling up and down Edinburgh "closes," (lanes flanked with tall houses on either side,) the filthiness of which is proverbial, there is some solace in a snug fire and warm slippers, not to mention dinner; and at all times it requires some resolution to turn out again with that meal half-digested, to listen to what often prove most tedious papers, and most uninteresting debates. On the night in question, however, what is often morally a difficulty became physically an impossibility. The wind, which had been eddying about all day in fitful gusts, had by eight o'clock risen to a gale, blowing sometimes rain, sometimes hail, with cutting blast, in the face; and no man who had any considerable distance to traverse before reaching the George-street Hall, where the Society meets, or who was not actuated by a most ardent thirst for knowledge, would think of being present at the meeting. For the sake of the meteorologists among your readers, I may add, that by midnight the gale had risen to a hurricane, which seemed to have attained its greatest intensity about 2 a.m. on the 7th, and to have ceased entirely about 5 a.m.

This extraordinary tempest, which the oldest inhabitant has requested me to inform you, on his authority, was never equalled in Edinburgh in his recollection, was preceded by a remarkable and sudden depression in the barometer.

Assuming your Edinburgh Correspondent to be the individual so often accused, the fate of the city *woods* was a sufficient warning to him not to join the small but select meeting who assembled on that evening at the

MEDICO-CHIRURGICAL SOCIETY.

The first paper was a case of fatal Hæmorrhage into the abdomen, connected with disease of the ovary, by Dr. William Brown, of Melrose. It was communicated by Dr. W. T. Gairdner.

As far as I have been able to gather the particulars, the patient, a young woman, was seized with sudden pain in the abdomen, and faintness, and died the next morning. On dissection, the right ovary and uterus were found to be healthy, but the left ovary was much enlarged, and over it the peritonæum had been torn, and allowed of the escape of a considerable quantity of blood into the peritoneal cavity.

After reading the case, Dr. W. T. Gairdner made some remarks on the pathological character of the tumour, likening it to some of the cases described by Nélaton. A discussion on the case took place between Dr. Simpson, W. T. Gairdner, and Matthews Duncan.

The next paper was a case of Fatty Degeneration of the Heart, by Dr. Paxton, of Kilmarnock; and the last was a case of Aneurism unsuccessfully treated by compression, by Professor Miller. This was the most interesting paper of the

evening, and more especially valuable as Professor Miller has been an advocate for giving a fair trial to compression in all cases which seem suitable for it, and has more than once contended for it against Mr. Syme, who is a determined opponent of compression.

There was not much discussion; Mr. Struthers made a few interesting observations.

The annual meeting of the

EDINBURGH MEDICAL MISSIONARY SOCIETY,

in which many of the Medical men here take a deep interest, was held on the 4th instant, and we regretted to observe, was not very numerously attended. Among the Medical men present we noticed,—Professors Balfour, Miller, and George Wilson; Drs. Andrew Wood, Bell, Coldstream, Handyside, Moir, Omond, Burn, Murdoch.

The Chair was taken by William Brown, Esq., F.R.C.S. The reporter stated that Dr. Evans, the Society's Medical Missionary at Mirzapore, had during the first year of his labours attended 810 males and 414 females, in all 1224 patients. His patients are addressed twice a week by one of the Missionaries. A second Missionary, Mr. Patterson, is now ready, and is to be sent out to Madras at the expense of the Society, and is to be supported by the Free Church and the Society. A very interesting feature in the report, was the reference to Dr. Wong Fun, who had just finished his curriculum at the University, having received the degree of M.D. in August last, and is now on the eve of returning to China. As a student, Dr. Wong Fun acquitted himself to the entire satisfaction of his teachers. He is the first Chinese who has ever graduated at a European University.

The speakers at the meeting were, the Rev. Mr. Johnstone, from Amoy, the Rev. William Robertson, Dr. Greville, Rev. Thomas Smith, of Calcutta, Professor George Wilson, and Dr. Bell.

Mr. M'Queen, the treasurer, reported that the income during 1855, had been £725 15s. 4d., and the expenditure £406 16s. 8d., the balance when added to that of the preceding year amounting to £773 18s. 11d.

GENERAL CORRESPONDENCE.

TERMS OF ADMISSION TO PUBLIC CHARITIES.

[To the Editor of the Medical Times and Gazette.]

Sir,—The regulation of Medical Charities is a subject that concerns the well-being of the Profession to which they are so much indebted, no less than the public who receive the benefit.

There are two questions on which I desire information from those of your readers who can speak from experience:—

"Shall any patients be required to make any payment before admission to the benefits of the Charity?"

"How can we best secure that proper objects only shall be admitted? Who are proper objects?"

For two years I have been Physician to a dispensary, where, taking the average of the last eight years, 5368 patients have been attended annually, and in 1854 of these, 179 were midwifery cases. There are eight Medical officers, exclusive of the House Surgeon. The attendance is wholly gratuitous; the Medical officers receive no payment, the patients make none.

It is the general opinion that many of the midwifery cases are persons who are able to pay even a full fee; and that not a few, though a much smaller proportion, of the other patients are in circumstances to pay something.

At the last monthly meeting of the Dispensary a sub-Committee was appointed to consider the motion thus proposed:—

That a small sum be charged to the patients in every case of midwifery.

My theory is, that in this, as in other Charities, the benefit is much increased, and the favour is more valued, if the relief be given in such a manner as to foster a spirit of independence. I would help the sick to help themselves.

To attend a woman lying-in, under ordinary circumstances, without requiring her to make any payment, is wholly subversive of this spirit. This is an extreme case, but would it not be wholesome to extend the application of the principle to cases of ordinary sickness?

The other question, How shall we best secure that proper objects only shall be admitted to the benefit of the Charity? seems to me of even greater importance, and as it is possible that the same person will be able to speak from experience on both points, I shall be obliged by information on this also.

I am, etc. X. P.

9, Lower Belgrave-street, February 12, 1856.

IMPROVED METHOD OF CAUTERIZING STRICTURES.

[To the Editor of the Medical Times and Gazette.]

Sir,—In the *Medical Times and Gazette* for September 29, 1855, I suggested a new method of cauterizing strictures of the urethra, which it will be as well to quote briefly:—"If the point of a catgut bougie be immersed in nitrate of silver in a state of fusion, ... with the addition of a small quantity of water . . . . . by twirling round the end of the bougie in this liquid, you may get its termination coated with a fine layer of the caustic . . . . The mode of application is this:—Pass a full-sized straight catheter with one terminal aperture completely *down to* the stricture; then pass the armed bougie (having previously marked off with a scratch of the nail the extent to which you wish to project it) through the catheter *into* the stricture; the whole track of this latter may then be freely and equably cauterized by gently rotating the bougie."

On the advantages this method of cauterization possesses over those hitherto in use I shall not dilate; they will be found fully explained in my original communication. Since that time I have used bougies armed by this method on several occasions, and find its application easy and efficient. Moreover, I have further found that fine catgut bougies may be equally well coated with the potassa fusa as with the nitrate of silver. The only additional precautions necessary to observe are, first to grease the end of the bougie slightly before dipping it into the fused potash, and to allow this latter to cool a little before using it. The thin layer of soap thus formed by the grease and the alkali prevents this latter acting destructively on the fibre of the bougie.

Mr. Coxeter keeps bougies armed with the nitrate of silver after this method ready for use; those armed with caustic potash the Surgeon must prepare himself directly *before* using them, on account of the deliquescent property of the potash.

Without wishing to enter into the curative powers of caustics generally in urethral stricture, I may state that Messrs. De Morgan and Moore, of the Middlesex Hospital, have both informed me, that they have succeeded in effecting excellent cures by the potassa fusa in cases that had resisted dilatation.

30, Devonshire-street, Portland-place, I am, etc.
February 18, 1856. J. Zachariah Laurence.

QUININE IN FEVER.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you do me the favour to give as early insertion as convenient to the following remarks on the treatment of fever by large and frequently repeated doses of quinine? In the observations which have been made on that subject in your publication during the last few weeks, I am convinced that this practice is recommended with too little regard to the pathological conditions existing in fever. After much experience in the treatment of this disease in its different types, and as influenced by various climates, I have been dissatisfied with the employment of quinine, not only in continued and remittent fever, but even in intermittent itself, when used without reference to the conditions I have alluded to. The fact is, that there is no remedy which can be considered as a specific in fever, to be indiscriminately employed without regard to the stages and varieties of the complaint. I remember the time, when the free employment of calomel was recommended with as much confidence as the quinine treatment is at present, with a view of cutting short this disease, and by Practitioners having equal opportunities of observation. Our practice, to be successful, must be founded on true principles, and it is this which distinguishes scientific from empirical treatment. Yet, as a knowledge of the principles on which

the management of fever depends, brings us to the disputable ground of the theory of fever, it may be asked who shall decide when opinions are still so undetermined and discordant? There is scarcely an organ in the body which has not, at one time or other, been considered as the seat of this disease. The opinion of Clutterbuck, that inflammation of the brain was the proximate cause of fever, and that of Armstrong, that it depended on a derangement of the balance between the arterial and venous circulations, were both skilfully defended, and were so far of service as to draw the attention of Medical men from a merely arbitrary and nosological, to a physiological basis on which to rest our treatment. In order to take an accurate view of the nature and treatment of fever, we must consider it under the various phases it assumes according to the influence of climate, and the other circumstances by which its character is modified. It is considered by many eminent individuals, and I think with much justice, that the yellow fever of New Orleans and the West Indies is but an exaggerated form of the remittent incident to milder latitudes where malaria is less concentrated, and the exhausting influence of heat on the system less excessive. As examples of the latter situations, I would instance Ohio, and Indiana, in the United States, where I have personally suffered under attacks of this form of fever. Again, in still more northern and temperate regions, as in Canada, the type of the disease assumes a more intermittent character, while in Great Britain, continued fever is more common. The cause of this probably is that, as malaria is here less prevailing and intense, the character of the disorder is more exclusively dependent on the functional disturbance of certain organs of the system, than on the general depressing influence exerted by this subtle and mysterious effluvium.

Now, keeping in view the physiological basis on which to form our opinions of the nature and treatment of fever, what are the organs in the disturbance of which we are to look most rationally for an explanation of the phenomena of fever? In yellow fever, the reference to the abdominal organs from the black vomit, and colour of the skin, is too obvious to require more than a passing notice; and in intermittent, the enlarged spleen, liver, and gorged state of the abdominal organs generally, are equally evident. It is also true, not only that intermittent may run into remittent, and *vice versâ;* but there is also the same relation between intermittent and continued fever, namely, that intermittent may be converted into continued, or the latter into the former. A remarkable instance of this conversion of continued into intermittent has lately come under my notice, and instances of the same kind I have heard asserted by the late Dr. Armstrong, and by many Practitioners now living. Having established this fact of the identity of fever under all its varieties, we may hope, by continued investigation, to distinguish its essential from its accidental features, and thus arrive at greater certainty in its successful treatment than we can boast of at present.

Taking into consideration the evidences of abdominal disorder, previously adverted to, what inference can we logically draw from these facts, as connected with the phenomena of fever generally? We must, first of all, consider well the nature of the abdominal circulation. The arteries which supply the blood, employed in digestion, to the intestinal tube, terminate in veins, principally the mesenteric; these veins again converge to form one trunk—the vena portæ, from which veins again ramify through the liver. Thus is formed a circulating system totally different from what exists in any other part of the body, the vena portæ being like a stagnant reservoir between two systems of veins—that, namely, of the liver on the one side, and of the intestines on the other. From this circumstance we may easily comprehend how the disorders of the intestinal extremity of this system of veins (as well as the hepatic) should be distinguished by the characteristics of venous obstruction rather than of more active excitement; and it is not to be supposed that much embarrassment of function originating in this cause will be unattended with that constitutional irritation which fails not to be the consequence of disturbed function in all organs of importance to life. The influence which this deranged abdominal circulation has in simple fever seems to be that, instead of the paroxysm having its usual termination in health, the system remains under the pressure of a permanent source of depression and irritation, so that merely a remission of symptoms ensues, and perhaps no obvious remission at all. Thus, in the continued type, instead of the chill, the hot, and sweating stage, which constitute a regular paroxysm of fever, there is no regularity whatever in these respects, and the condition of the body has some relation to that which is symptomatic of a local injury, or idiopathic inflammation, but by no means identical with such a condition. The condition of the loaded vessels in the coats of the intestinal tube where the mesenteric veins take their origin, (which veins constitute the branches from the intestinal side of the stagnant reservoir, or vena portæ,) may be compared to that of the brain, under obstruction to the circulation in the cervical veins, so far as regards the difference in the symptoms originating in this cause, as compared with those occasioned by direct arterial excitement.

In these observations I am not forming a theory in conformity with which the management of fever is to be conducted, but am endeavouring pathologically to account for the success of a treatment which has been frequently observed. This treatment consists in the use both of mercury and quinine, according to the circumstances under which each remedy is applicable. I must here do justice to an author, from whose work I derived advantage many years ago. About the year 1824, Dr. Burne published a small volume on typhus, in which the indications requiring mercury and those requiring quinine, were specifically stated; and these indications were drawn from the condition of the abdominal organs, and the appearance of the alvine excretions. When this excretion has an olive colour, quinine given alone will generally fail. This is an unmistakable sign for the use of mild mercurial remedies; but when the alvine excretions have been by this means rectified, and the evacuations have assumed an ochre colour, then quinine will accomplish a cure, speedy in proportion to the early or late good management to which the case has been subjected. Had I space, it were easy to show the connexion subsisting between the congestion of the intestinal veins, and the appearance here spoken of as requiring the employment of mercurial remedies for its relief. In the formidable remittent of Armenia, both calomel and quinine are used by the native Practitioners in enormous doses, and frequently in combination. The accuracy of the pathological views I am advocating, is further evinced by the case to which I have previously alluded, as exemplifying the identity of continued and intermittent fever. This case I attended when residing in the neighbourhood of Oxford, and had Dr. Acland, of that place, and Mr. Reynolds, of Thame, in consultation with me. About the fifteenth or sixteenth day of the disease a severe rigor occurred, and we were at a loss to say whether it arose from some deep-seated local mischief, or as indicating that the disease had assumed an intermittent type. It proved, however, that the latter was the case, and the paroxysms recurred in a quotidian form, yielding to the use of bark. Quinine had, in an earlier period, been given without benefit. Mercury had also been employed, until the gums became affected, without that sensible advantage which usually results from its appropriate employment. In this case large quantities of blood were evacuated by the bowels, and I may take occasion to observe, that the frequency of this occurrence in typhoid fever tells powerfully in favour of the views I am advocating, that congestion of the abdominal veins forms so important a feature in that complaint; and when we consider that the action of the arteries, which supply blood to the stomach and intestines, is increased during digestion in a high degree, and that the propensities and habits of a great portion of mankind lead them to over-feeding, both as to quantity and frequency, to say nothing of other forms of stimulation, we cannot feel surprised at the liability of the stagnant portal reservoir to congestion and engorgement, from such over-action of the arteries which fill it.

These remarks can, of course, apply little farther than to those phenomena of fever dependent on morbid vascular action, without so much reference to those changes in the constitution of the blood itself, which modern researches prove to exist in the most aggravated forms of fever. On the whole, the treatment of fever requires the active application of all the best measures which the present state of our knowledge affords, and of which Medical and dietetic means form only a part. There is yet much to be discovered; but, in our enterprises for this purpose, we should take care that we have previously availed ourselves of all that is known on the subject, since it is a truism, that no man can be an original discoverer to good purpose until he has made himself master of what has been previously ascertained on the matters subject

to his inquiry; and in the case of heroic doses of powerful medicines, it is acknowledged that, if we do no good, we generally do harm. I will not trespass further on your valuable pages, and beg to subscribe myself, etc.

T. H. Snow, M.R.C.S.E., L.S.A., and
Licentiate of the Practice of Medicine in Canada.

Holyhead, January 16, 1856.

PS.—Since writing the above I have observed, in your last week's number of the *Medical Times and Gazette*, a paper from the pen of Mr. Laird, Surgeon of Her Majesty's ship Medea, stationed at Port Royal, in Jamaica, "On the Use of Spirit of Turpentine in Yellow Fever." In that production occur the following remarks with respect to the use of calomel and quinine in this disease. In regard to the former he observes: "From further experience I have gained of the treatment of tropical fevers during the last few months, I am of opinion that the turpentine mode of treatment will be found to answer better when assisted by occasional doses of calomel, from three to five grains, given with a view of exciting a depuratory action on the liver; convinced, as I cannot help being, of the almost constant complication, although not inflammatory, which this important organ sustains in yellow fever." Concerning quinine, he says, "That very valuable remedy, quinine, still deserves much attention; for, however extensively used, as it now is, both as a prophylactic and a remedy, the period of fever when, and the doses in which, it should be given have not yet been satisfactorily settled. But until the phenomena of febrile action are thoroughly understood, all modes of treatment must, to a certain extent, be vague and uncertain."

Now, Sir, I do flatter myself that the views I have stated in this communication are calculated to assist in giving precision to our ideas with respect to the exhibition both of calomel (or the milder forms of mercury) and quinine in fever. That quinine is, to a certain extent, a specific for fever, unconnected with local inflammation or congestion, there is no doubt. But, as observed before, I have not had reason to be satisfied with quinine, indiscriminately employed, even in intermittent. For a whole winter I was teased with this complaint at Cincinnati, contracted in the autumn when in a weak state from other disease. Quinine appeared to be of no service, or only stopped the paroxysms for a very short period, when they recurred with greater violence than before; while its effects were most disagreeable, consisting of headache, heaviness, whizzing in the ears, and such other symptoms as it is well known to occasion. I found nothing of so much service as an occasional aperient, with a diet very moderate in quantity but nutritious in kind; full feeding was sure to be attended with a recurrence of the paroxysms. In typhoid fevers of the more acute form also, without much caution in its employment, it not only increases the stupor, and other head affections, but parches the tongue and fauces, and aggravates the restlessness. Frequently where quinine is inapplicable, opium may be serviceable under due restriction and care. It is a most valuable adjunct in the treatment of fever, and I consider that in the worst attack of remittent I ever had, the preservation of my life was owing to this medicine combined with moderate doses of calomel.

IMPORTANT TO BACHELORS OF MEDICINE OF THE UNIVERSITY OF LONDON.

[To the Editor of the Medical Times and Gazette.]

Sir,—At page 60 of the University of London Calendar for 1856, is the following notice to the Bachelors of Medicine of that University:—"The Senate desire it to be understood that Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine."

This seems to me, Sir, to be a very important notice. There are a considerable number of gentlemen possessing only the Degree of M.B. Lond., who style themselves Doctor. They have hitherto rested their claims to such title on two grounds: 1st. That of custom. The Bachelors of Medicine, they say, of Oxford and Cambridge assume and are addressed by the title of Doctor. 2nd. That of want of proscription. The Senate of the University has, it is urged, nowhere officially intimated its disapprobation of the M.B.s styling themselves Doctors. The latter ground for the assumption by the Bachelors of a title they have not earned is now removed. The Senate, by the above-quoted notice, has unequivocally expressed its disapproval of the conduct of those Graduates of the University who call themselves what they are not. For to say a man has no right to do a thing is equivalent to saying that he who does it, does wrong.

As to the plea, founded on custom, that the M.B. of London has as much right to call himself Doctor as the M.B. of Cambridge, it is to be observed, that the Cambridge Bachelor obtains the Doctorate after a nominal examination, that the licensed M.B. has submitted to all the tests which the University consider sufficient to prove his fitness to be honoured with its higher degree, and, therefore, by courtesy he is termed Doctor. Not so the Bachelor of Medicine of the University of London. The Senate of that University think the examination for their Bachelor of Medicine insufficient in extent to warrant them in bestowing on those who pass it the title of Doctor; they, therefore, compel those who desire to have the M.D. Degree, to submit to another examination, not only in some of the subjects in which they had previously been examined, but in several other of the higher branches of knowledge—as Logic and Moral Philosophy. That the examination is a real and not a nominal one, is proved by the number of Bachelors of Medicine who are rejected when they attempt to obtain the higher degree.

One effect of the notice of the Senate of the University must be to prevent the Profession acknowledging the right of its M.B.s to the title of Doctor, and, consequently, to compel all those who desire to become Physicians to Hospitals, etc., to obtain the Degree of M.D. This, evidently, is one object of the Senate. The public will not support the claims of a Mr. Dash to the Physicianship to an Hospital. Their idea is (and who can disabuse them?) that Doctors only can be Physicians.

I am, etc.

A Graduate of the University of London.

FOREIGN BODY IN THE ŒSOPHAGUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—The publication of the case of œsophagotomy, or pharyngotomy, in your Journal of the 9th inst., has induced me to send you a brief report of an accident which fell under my own observation a short time since, and where a similar operation might have become necessary, had not the abstracting body descended before the symptoms resulting from its impaction had become very imminent.

On May 2, 1855, I was consulted by Mrs. D., aged 30, who stated that, during the preceding night, in her sleep, she had accidentally swallowed a piece or plate, containing three artificial teeth, corresponding to the outer incisor, the canine, and first bicuspid. The accident appeared to have been occasioned by this piece having been affixed to a faulty tooth, and thus being too easily detached.

Notwithstanding the inconvenience and suffering thus produced, she had walked to my house, in order, if possible, to get the substance removed. It had passed too far down either to be seen or to be felt by the finger. She referred the sensation produced to a point behind the upper part of the sternum. On having recourse to the probang, I manipulated very gently with it, and, after a little time, succeeded in passing it down the œsophagus, hoping that it had carried the extraneous body before it into the stomach, especially as she thought herself much relieved. I prescribed for her a little soothing and aperient medicine.

On the following morning she came to me again, stating that she still felt as if there was some obstruction in the part. On having again recourse to the probang, I met with resistance near the upper part of the œsophagus, but, after a short time, it again passed, inducing us to hope that the obstruction was now removed.

On visiting her at her own residence, two days afterwards, she stated that, from her own sensations, she believed the substance had not really descended into the stomach until the following night after she had called upon me the second time, and on the succeeding day it was discharged through the bowels.

On examining the plate, I found the teeth had not been attached to gold, but to an inferior metal, to lessen expense I suppose.

Except a little soreness in swallowing for a few days, she suffered, I believe, no further inconvenience.

I am, etc. JOHN WINDSOR, F.R.C.S.
Senior Surgeon of the Manchester Eye Hospital.

65, Piccadilly, Manchester, February 14, 1856.

LOCAL ANÆSTHESIA FROM COLD,

[To the Editor of the Medical Times and Gazette.]

SIR,—I observe in your journal of this week, a letter from Dr. Arnott on the effects of cold in producing local Anæsthesia, in which he appears to attribute the unfavourable progress of a case, on which he is remarking, to the application of the freezing mixture for seven or eight minutes; a period, he says, four times longer than necessary in cases where there is no inflammation to subdue. Now, in reference to this point, I would beg to state, that I have had numerous opportunities of making trial of this application, and have in all cases followed Dr. Arnott's excellent and lucid directions, as given in a previous number of your paper, and in none of them in which I have noted the time of application have I found it less than eight minutes before *complete* anæsthesia was produced. I have applied the freezing mixture to my own arm by way of experiment, with the same result. In all these instances, the effect was ultimately produced, (except one of whitlow, which like Case 8 of Dr. Pettigrew, resisted the frigorific,) and in none did any bad result follow the application. I conclude, therefore, that individual peculiarities, and the difference in the thickness of the skin in various persons and various parts of the body, exercise such an influence on this matter, that it would be rash without further data to lay down any particular period as a maximum.

I have only to say, in conclusion, that my experience of cold as an anæsthetic was most satisfactory; and, that it was only in consequence of accidentally overlooking Dr. Arnott's request, that I did not forward to him the results of it in respect to the time of application. Should any future opportunity arise, he may rely on my not neglecting it.

4, Vigo-street, T. HOLMES.
February 19, 1856.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

SATURDAY, FEBRUARY 16, 1856.

DR. SNOW, President, in the Chair

MR. JABEZ HOGG exhibited to the Society a

MAGNETO-ELECTRIC MACHINE,

Made by Mr. RICHARD KNIGHT, of Foster-lane, Cheapside.

IT consists of a compound permanent magnet of the horse-shoe form, the poles of which are slid into two coils of fine covered copper wire, the coils being screwed to a flat board, which board is fixed in a vertical position at the back of the interior of the case. Two of the ends of the coils of fine wire are joined together, forming the two coils into one; the remaining ends are connected with two binding screws fixed on the external back of the case. By a simple mechanical contrivance, a soft iron keeper is mounted on an axis inside the case, and by means of a small handle, fixed on one exterior extremity of the case, the said soft iron keeper is made rapidly, and at the same time noiselessly, to rotate in the front of the poles of the horse-shoe magnet, thereby exciting a strong current of induced magneto-electricity through the coils of wire surrounding the poles of the magnet, the ends of which coils, being connected with the external binding screws, enable the operator to direct the current according to pleasure. At the corresponding exterior extremity of the mahogany case, which is made to contain the whole instrument, is fixed a fine screw with a milled edge and attached index; by gently turning the head of the screw the magnet is drawn out of the coils of wire, or *vice versâ*, so that the current of magnetic electricity may be increased, or diminished, with the greatest facility, accuracy, and certainty.

In the front of the mahogany case, beneath the door which opens on the internal arrangements of the apparatus, is a small drawer containing several necessary instruments for the application of the magneto-electric current, such as cylinders, paints, brushes, and rollers, all of which separate instruments are readily fixed into handles by means of a small thumb screw attached, and these handles are connected with the magneto-electric machine, by means of the flexible copper cords covered with silk. The weight of the machine is about nine pounds, and is readily carried by a handle fixed at the top of the case. The solidity of the construction of this apparatus is such as to preclude the chance of any derangement of its parts, and the very great advantages which it offers as to constant and regular action, economy, and portability, as well as simplicity of form, will, it is hoped, render it of far greater service to the Medical Profession, than any galvanic or magneto-electric machine hitherto brought to their notice.

Mr. I. B. Brown exhibited an apparatus for catching the urine in cases of vesico-vaginal fistula. It consisted of a gutta percha ball, to fit somewhat tightly into the vagina, perforated by seven holes at the top, through which the urine enters from the bladder, the ball being prolonged outwards into a tube several inches in length, with a stop-cock at the end, and communicating with a bag suspended to receive the urine.

Mr. Henry Thompson read a paper

ON AMPUTATION OF THE FOOT AT THE ANKLE-JOINT,

illustrating his remarks by a patient upon whom he had performed this operation a short time previously. The following gives a concise view of the chief points to which he directed the attention of the Society, commencing with a brief outline of the history of the patient. A girl, aged 10, had suffered from caries of the tarsus and metatarsus, during rather more than four years, for the greater part of which time she had resided at Margate for her health. The disease becoming confirmed, and spreading, Mr. Thompson decided to remove the foot at the ankle-joint. A considerable portion of the flaps healed by the first intention, and the wound was soundly cicatrized, and the stump firm, in six weeks from the date of the operation. Mr. Thompson attributed the excellent result of this operation to the adoption of a certain mode of performing it, which involved the following as its chief points, the neglect of which is liable to produce tedious suppuration, a sloughing, or unsoundness of the flap:—1st. The division of the posterior tibial artery should be made as low down as possible in the flap; a point admitted on all hands. 2nd. Care must be taken not to inflict injury upon the heel-flap, either by the knife, or by the forcibly handling it during the operation. 3rd. The lower incision, with which the operation commences, should take its origin not at the centre of the lower margin of the malleolus externus, but somewhat behind that point, should be carried obliquely backwards to the posterior part of the heel, and be concluded at a corresponding point below the inner malleolus. The heel-flap is thus far less hollow in form than that which is ordinarily made. The objections to the cup-shaped heel-flap are, the impossibility, from its form of union, occurring between it and the upper part of the wound by the first intention; its liability to become a receptacle for blood or purulent matter, and to lose part of its substance by sloughing. The author stated, that he had adopted this plan with a most rapidly successful result, on the recommendation of Mr. Syme, who appears to have been led, by the result of his experience, to carry the lower incision further back than he did at the period when he first performed the operation. It was not to be lost sight of, moreover, that the operation was easier of performance by this method. The paper was illustrated by diagrams of the foot, showing the lines of incision described; and the attendance of the patient herself, which had been unavoidably prevented, was arranged for the next meeting of the Society.

Mr. Henry Lee said, that the results of the union of the flaps by the ordinary method were not generally satisfactory. It often happened that a part of the flap extensively suppurated, and sometimes sloughed. He had himself performed the operation in the usual way, and had known a portion of the flap to slough, so that the healing of the stump was delayed. The plan described by Mr. Thompson he considered a decided improvement upon the ordinary method, for the reasons which had been stated.

The President thought that the tender age of the patient was

favourable to the operation, the reparative powers being greater in a child than in an adult.

In answer to Mr. Bishop, Mr. Thompson said, that he removed the astragalus in the usual way, and that the boot which he had constructed, compensated for the shortness of the leg, two or three inches having been lost by the amputation. The patient was a strumous child, and that circumstance, he thought, counterbalanced any advantage which she might have in the way of recovery in consequence of her youth.

BIRTH OF AN ACRANIAL FŒTUS; WITH AN ACCOUNT OF THE DISSECTION.

By AMOS BEARDSLEY, Esq., of Ulverstone.

Mrs. P., aged 40, had had nine previous confinements; the labours had always been most favorable. In the latter months of her tenth pregnancy, she was of more than usual size; she suffered from general œdema, with difficulty of breathing, etc. On January 3, 1856, labour set in; and, after the discharge of a very large quantity of liquor amnii, an acranial fœtus was born. No efforts could make it respire. On examination, it was found to be a male, of full size, and well formed. The scalp was continuous from the orbital ridge of the frontal bone to the posterior part of the foramen magnum. The occipital bone, including the posterior part of the foramen magnum, and from that part upwards, was wanting, as were also the parietal bones. The temporal bones were only present in the base of the skull; and the frontal bone was confined to a narrow arch across the orbits. No trace of brain could be discovered; and there was no enlargement at the upper part of the spinal cord. Inferiorly, the spinal cord was perfect, with all its nerves and membranes; the theca vertebralis was firmly attached to the border of the occipital foramen. The olfactory, optic, auditory, and trifacial nerves, were wanting. The eye was perfect, except that there was no trace of even a rudimentary optic nerve. On the posterior part of the spinal cord were ten or twelve small filaments, apparently the origin of the eighth and ninth pairs of nerves. No branches of the facial nerves could be discovered, and the muscles of the face and eye were rudimentary. The lingual, glossopharyngeal, and pneumogastric nerves, were traced to their distributions. The thoracic and abdominal viscera were normal; and the muscular system in general was well developed. The vascular system was perfect, except within the cranium. The circle of Willis could be observed; and the sinuses at the base of the skull were present, though in abnormal situations. A portion of the nervous system, being examined microscopically by Dr. E. Smith, was found to be perfectly normal in structure.

The author not being present to answer the questions of the members, no discussion arose on the paper.

The Society then adjourned.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Monday, Feb. 18.

MEDICAL STAFF IN THE EAST.

On the motion of Mr. Stafford, a return was ordered of the number of Military Medical officers who have proceeded to the East since the commencement of the war, stating the number who have appeared on the sick returns, who have died, or who have been invalided home. And a similar return as to the Civil Surgeons employed by the War-office.

DUBLIN HOSPITALS.

Mr. Crogan wished to know from the Secretary of the Treasury when the report on the Dublin Hospitals was likely to be forthcoming.

Mr. Wilson said the report was in a forward state, and might be shortly expected.

Tuesday, Feb. 19.

Petitions were presented by Mr. M. W. Williams, from Bedfordshire, and by Mr. Headlam, from Newcastle, in favour of the Medical Reform Bill.

ADULTERATION OF FOOD.

Mr. Scholefield nominated the Select Committee on adulterations of food, etc.:—Mr. Scholefield, Mr. Cowper, Mr. Alderman Cubitt, Viscount Ebrington, Viscount Goderich, Mr. Gregson, Lord Claude Hamilton, Mr. Kinnaird, Mr. Knight, Mr. Moffat, Mr. Otway, Mr. Peacocke, Mr. Sherland, Mr. Swift, Mr. Charles Villiers, and Mr. Wise.

Wednesday, Feb. 20.

Petitions were presented by Mr. Follett from Medical Practitioners of Bridgewater; and by Mr. Briggs, from Newport, Isle of Wight, in favour of the Medical Reform Bill.

MEDICAL PROFESSION BILL.

Mr. Headlam moved the second reading of this Bill.

Mr. Spooner said, there were many objections to this measure, and he hoped it would not be pressed forward now.

Lord Robert Grosvenor considered that some of the provisions of the Bill were most objectionable; it would give a complete monopoly to the new body it proposed to constitute. Henceforward no person would be capable of holding any Medical office unless he was qualified under this act. The highest authorities in the Profession agreed that Medical science in this country was in a most unsatisfactory state, and required complete revision. He strongly objected to the power of striking any Practitioners off the register given to the New Council. The existing Medical Corporation entertained the greatest jealousy of any innovation in practice. He knew a case where the University of Edinburgh refused a diploma to a person because he refused to pledge himself not to practise homœopathy; and under the provisions of this Bill the council would be able to strike the practitioners of this or any other new system off the roll. He did not mean to put himself forward as the champion of homœopaths, but he wished to recall to the house what occurred during the prevalence of the cholera epidemic. A medical commission was appointed to visit the different hospitals, but such was their aversion to the system, that they would not visit the Homœopathic Hospital, although it was situated in one of the districts most severely visited. At length one member, more conscientious than his colleagues, did so, and the result of his inspection was, that he declared if he was attacked by the epidemic, he would prefer being subjected to that mode of treatment rather than to any other. He would remind the house that the public had not asked for this bill. The only petitions in favour of it proceeded from the medical men who wanted to retain their monopoly. He admitted that a proper system of medical education ought to be established, and if it could not be done without the authority of parliament, he would not object to a bill for that purpose; but he could not allow this bill to proceed if the objectionable provisions he had referred to were retained.

Sir G. Grey agreed with the noble lord that some of the clauses required careful consideration. He was glad to find, however, that he admitted the necessity of taking some means to secure the education of persons intending to practise medicine. The bill as it stood enabled the council to strike a practitioner off the roll without appeal; it would be a subject of consideration for the committee whether a right of appeal should not be given. There was nothing in the bill to restrain the right to practise which the homœopathist now enjoyed. Many attempts had been made to carry a bill of this kind, but without success, owing to the jealousies of the Medical body; but he was happy to state that he had reason to conclude, from the communications he had received from the universities and other bodies to whom he had forwarded copies of this bill, that there was a greater approach to unanimity on this than on any former occasion.

Mr. Henley considered that some of the provisions of the bill required to be carefully guarded. It would be very dangerous to give the council power to strike any person off the register, merely on the ground of what was defined in the bill as misconduct. The jealousy of old practitioners against any new system was well known, and such a power might be abused. He thought nothing should be done to interfere with the present freedom of practice.

Mr. Napier said the bill was made to extend to Ireland, but of course the University of Dublin was omitted to be mentioned. It was the old story.

Mr. Headlam pointed out that the honourable and learned gentleman was mistaken in that respect. He would propose to put the bill down for committee in the first week after Easter. It might be here mentioned that no restrictions were proposed beyond what were already in force, and with regard to a non-registered practitioner being unable to sue for fees, that was the case at this moment with practitioners who had

not been admitted of some college. On the other hand there would be great advantage in persons who were registered being permitted to practise anywhere, instead of being limited to certain districts.

The bill was then read a second time, and ordered to be committed.

MEDICAL NEWS.

DEATHS.

ALLEN.—February 18, at Tunbridge Wells, Kent, Edmund Thomas Allen, Esq., M.D., late of York, aged 45. M.D. St. Andrew's 1854; M.R.C.S.E. 1836; Lic. Midw. Dub. 1836.

DOUGLAS.—February 15, at Albany-street, Edinburgh, in his 20th year, Mr. Nisbet Douglas, Student of Medicine.

EDWARDS.—February 12, aged 54, Mr. Edwards, Surgeon, Llanbedr, Carnarvonshire.

OUTRAM.—At Brighton, on the 16th of February, aged upwards of 80, Sir Benjamin Fonseca Outram, C.B., M.D., F.R.S. He entered the Naval service in 1794, and was promoted in 1796 to the rank of Surgeon. He served actively under Sir R. Keat and other distinguished Captains during the revolutionary war. He was for many years Surgeon to the Royal Sovereign yacht. He graduated at the University of Edinburgh in 1809. He was for some years Physician to the Welbeck-street Dispensary, but had retired from practice many years. He was appointed Inspector of Fleets and Hospitals in 1841, and had received war-medals and clasps for brilliant naval actions in the Nymph and Superb. In 1850 he received the C.B. of the Bath, and was knighted by patent soon after. He had resided in Hanover-square upwards of forty years.

WEST.—February 19. at Speenhamland, Newbury, Berks, Witney Milborne West, M.D., aged 88, formerly of Hammersmith.

BEQUESTS.

THE LATE WILLIAM PARKES, Esq., of Skirwith Abbey, Cumberland, has left £500 to the Manchester Infirmary, £250 to the Stockport Infirmary, and £500 to the Cumberland Infirmary.

APPOINTMENTS.

BIRMINGHAM AND MIDLAND COUNTIES LYING-IN HOSPITAL AND DISPENSARY FOR THE DISEASES OF WOMEN AND CHILDREN.—Mr. Dalton A. Hoffenden, House-Surgeon to the Western General Dispensary, New-road, has been elected one of the resident Surgeons.

ST. LUKE'S PARISH.—Mr. Edmund Bletchly was elected Surgeon to the City of London and East London Dispensary on the 19th inst. On the 6th inst. he was appointed Medical officer to a district of St. Luke's parish.

A DEPUTATION from the Royal College of Surgeons of England had an interview, on Tuesday, with the Rt. Hon. W. Cowper, President of the General Board of Health, at his office, Whitehall. The deputation consisted of Mr. William Lawrence (President), and of Mr. Benjamin Travers and Mr. Edward Stanley, Vice-Presidents of the College.

KENSINGTON.—Dr. Baines, Mr. Frost, and Dr. E. Smith have been returned by the Medical referees as eligible for the post of Officers of Health to the parish of Kensington.

THE JURIDICAL SOCIETY at its Annual Meeting on Monday last, elected Dr. Forbes Winslow one of its Vice-Presidents. The unusual honours thus conferred by the legal profession upon Dr. Winslow must be alike gratifying to that gentleman, and complimentary to the whole body of Practitioners in Medicine.

PUBLIC BATHS AND WASH-HOUSES IN THE CITY.—Mr. Thomas Abraham has given notice of the following motion in the Court of Common Council:—"That the physical and moral condition of man is much influenced by cleanliness in his dwelling, person, and apparel; that the want of public baths and wash-houses in this City is severely felt by the labouring population, and that it be referred to the Coal and Corn and Finance Committee, to consider and report to this Court the best means of supplying the want alluded to, and the estimated cost thereof."

ARMY SURGEONS AND THE ORDER OF THE BATH.—There are only seven army surgeons remaining who are Officers of the Military Order of the Bath. One of the seven is a Knight Commander, the other six are Companions of the Order. The Knight Commander is Sir James M'Grigor, Bart., late Director-General. The six Companions are Inspector-General H. Franklin, Inspector-General Dr. French, Inspector-General Sir James Grant, Inspector-General Dr. Hume, Inspector-General Gunning, and Inspector-General Dr. Woolriche. All served in the Peninsular campaigns or at Waterloo; Sir James Grant was chief of the Medical Department of the Duke of Wellington's army in the Waterloo campaign. They are all on the retired list.—*Daily News.*

REMARKABLE HEALTHINESS OF TROOPS IN THE CRIMEA.—CAMP, CRIMEA, February 5.—During the month of January, which has just concluded, only 8 deaths have taken place out of 1000 patients in the Hospitals of the Light Division. The strength of the division is 6555 men, so that only one death has occurred in every 819 men during the whole month. This is remarkable, considering the number of young soldiers in the Light Division, and all the circumstances of their position and condition, together with the variable and severe nature of the climate at this season of the year. And it becomes the more remarkable in estimating the amount of disease, because 4 out of the 8 deaths which occurred, were attributable to the effects of intoxication, and not to ill health. The contrast with the condition of the troops during the corresponding month of last year is very striking. During January, 1855, instead of 8 deaths, 317 deaths occurred in the Light Division; and that when the Division was very considerably weaker in numbers than it now is. The Division occupies precisely the same ground now as it did then. Five regiments, viz., the 33rd, 88th, 90th, 19th, and Rifle Brigade, have been without a single death the whole month. In December, 1854, the number of deaths in the Light Division was 258.

A LADY, the daughter of the late Mr. Samuel Blackwell, of Bristol, has just completed her Medical studies in Paris, and obtained a diploma to practise as a Physician. She has a sister, who pursued her studies also in Paris, who is acting in a similar capacity in New York, under the title of Dr. Elizabeth Blackwell. The lady who has just obtained this honourable distinction is Dr. Emily Blackwell. Her studies have been principally directed to the diseases of women and children.

THE DEATH OF A MEDICAL STUDENT, aged 20 years, is registered, "from a wound in making a post-mortem examination, typhus (6 days)."

MEETING OF THE POOR-LAW MEDICAL OFFICERS OF ST. MARY, NEWINGTON.—At a meeting of the Poor-law Medical Officers of the parish of St. Mary, Newington, held at Walworth, February 14, 1856: present, Mr. Lowne, Mr. Gannon, Mr. Marshall, Mr. Perrin, and Dr. Marsh, it was resolved unanimously, that George G. Lowne, Esq., be elected Secretary and Treasurer. That the above-named gentlemen do form an Association for the purpose of affording every possible support to the excellent movement commenced by Mr. Griffin in aid of the Poor-law Medical Officers. That a subscription of 5s. per quarter be at once entered upon, in order to meet the necessary expenses attending the Petition to Parliament. That a copy of the above resolutions be forwarded to the Medical Periodicals. That this meeting cannot separate without expressing its deep sense of gratitude to Mr. Griffin for his strenuous and untiring exertions on behalf of his Professional brethren on so important a question; and that a copy of the same be forthwith transmitted to that gentleman.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.—At a meeting of the Medical Officers of the Uckfield Union, held on the 13th instant at Uckfield, it was resolved unanimously:—1st. That the thanks of this meeting be tendered to Mr. Griffin for his exertions in the cause of the Union Medical Officers. 2nd. That Mr. George Holman be appointed local secretary and treasurer. 3rd. That a subscription of five shillings per quarter be paid to the local secretary to defray the necessary expenses. 4th. That this meeting entirely concur in the suggestions contained in Mr. Griffin's circular, and pledge themselves to give them their best support. 5th. That a copy of these resolutions be sent to Mr. Griffin, and the journals. Henry Holman, Chairman; Charles Penrice, John Jones, George Holman, W. A. Bryden, Stephen Moyer, Medical Officers of the Uckfield Union.

At Her Majesty's Levee, on Wednesday, the general circle was attended by Sir Henry Holland, Bart., Physician in Ordinary to the Queen; and Mr. William Fergusson, Surgeon-extraordinary to the Queen. The following presentations took place:—Mr. B. E. Broadhurst, on appointment as Surgeon to the Artillery Company, by Lieutenant-Colonel the Right Honorable H. Fitzroy; Surgeon Llewellyn, by Colonel Griffiths; Surgeon Ockwald, by Lord Panmure; Staff-Surgeon Ridgway, by Viscount Enfield; Assistant-Surgeon T. F. Steinhauser, by Chairman of East India Company; Dr. Grant Steward, R.N., by Sir C. Wood.

Election of Officer of Health.—There were no less than nineteen Medical gentlemen proposed for election as Officer of Health for the important parish of Marylebone. The names, on a show of hands, were reduced to four, the competitors then being Messrs. Thomson, M.D., Whitmore, Stocker, and Steward. A second show of hands reduced the number to two—viz., Messrs. Thomson and Whitmore, and these gentlemen were then put to the ballot. After an hour's balloting, Dr. R. D. Thomson was declared elected.

St. Mark's Hospital for Fistula, City-road.—The annual general meeting of the friends and subscribers of the above institution was held last week at the London Tavern. The Chairman congratulated the subscribers on the fact that they were free from debt, although the funds were, as a matter of course, in a very low position, in consequence of paying off all claims connected with the completion and furnishing of the new Hospital. In addition to the usual business of an annual meeting, they would have to elect a Physician (honorary) in the room of his valued and respected friend Dr. Bampfylde Daniel, who had been associated with the institution from its commencement, and who was obliged to retire from the service on account of continued ill health. The surgical report of the number of patients for the year admitted as suffering from fistula, prolapsus, and similar diseases, amounted to 652, of whom 345 had been discharged cured, 218 materially relieved, 22 considered as incurable, 12 not regular, and 55 remaining on the books. The number of patients treated since the foundation of the institution in 1835 to December last, had been 9565. A special vote of thanks was given to Dr. Daniel for his long and valued services to the institution. Mr. John Field proposed, and Mr. J. B. Bunny seconded, that John Spurgin, Esq., M.D., be elected Honorary Physician in the room of Dr. Daniel. The motion was carried unanimously, and Dr. Spurgin returned thanks.

Plymouth Royal Eye Infirmary.—Election of a Physician and a Surgeon.—A special general meeting of the donors and subscribers to this institution was lately held at the Infirmary for the purpose of electing a Physician and a Surgeon to fill the vacancies caused by the resignation of Dr. Butter as Physician, and Dr. E. Moore, as Senior Surgeon to the Charity. Dr. Butter was proposed as Consulting Physician. The proposer spoke in terms of great praise of the benevolent exertions made by Dr. Butter in connexion with the Charity, and the regret felt by all connected with it at the affliction he was suffering under. The proposition was carried unanimously. Dr. Butter returned thanks for the very great kindness shown to him by his friends connected with that institution. While the affliction with which he had been visited rendered him unable to continue those active services he had hitherto given, he still should have much pleasure in rendering every assistance he could in the position they had been pleased to elect him to. It was next proposed and carried, "That Dr. E. Moore be elected Physician of this institution." We may observe, that Dr. Moore was one of the founders of the Infirmary with Dr. Butter. William Square, Esq., was also elected Senior Surgeon to this institution, and Mr. Eccles Second Surgeon.

Mortality Notabilia.—The mortality of London is much below the average; but catarrhal affections prevail. 1036 deaths were registered in the week that ended on Saturday, February 16, or 115 less in number than the deaths in in the previous week. The oldest person who died in the week was 93. She died of bronchitis. 21 persons died of small-pox; 12 under 20 years of age; 8 of the age 20—40; and 1 of 40 and under 60. *Five* of the deaths from small-pox took place in the Woolwich Royal Ordnance Hospital. Two of the men had *marks of cow-pox*; two, it is said, died after vaccination. Consumption is more fatal in the middle periods of life; 18 died of that disease under the age of 20; 66 at 20—40; 41 at 40—60; and 9 at 60—80.

Meteorology.—The mean reading of the barometer for the week ending Saturday, February 16, was 29·676 in.; the highest was 29·841 in. on Sunday, and the lowest was 29·581 in. on Tuesday. The average temperature of the air during the week was 47·0°, which is 8·4° above the average of the same week in 38 years, and 3·0° above the mean temperature of the preceding week, and as much as 21·6° warmer than the corresponding week of last year.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	1	4	5	2	13
North	490,396	7	8	5	17	6	17
Central ..	393,256	1	..	5	13	2	8
East.....	485,522	2	8	5	13	3	12
South	616,635	9	5	4	14	3	6
Total..	2,362,236	21	22	23	62	16	56

Deaths in Public Institutions for the Week ending February 9 and 16:—

	In the Week ending Feb. 9.			In the Week ending Feb. 16.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses..	80	73	153	66	47	113
Prisons	1	1	2	1	1	2
Military and Naval Asylums ..	3	..	3	5	..	5
General Hospitals	47	25	72	30	28	58
Hospitals for Special Diseases ..	13	6	19	10	10	20
Lying-in Hospitals	..	..	..	1	3	4
Military and Navy Hospitals ..	4	..	4	15	..	15
Hospitals and Asylums for Foreigners	1	1	2	2	..	2
Lunatic Asylums	3	5	8	6	4	10
	152	111	263	136	93	229

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, February* 16, 1856.

Causes of Death.	In the Week ending Saturday, February 16, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 47·0						° 39 1
All Causes	1036	481	169	179	165	37	1122 5
Specified Causes	1031	481	169	179	165	37	1115·3
Diseases:—							
1. Zymotic Class	235	161	35	25	13	1	225·2
2. Dropsy, Cancer, and others of uncertain seat	53	8	7	15	21	2	44·7
3. Tubercular Class	188	67	70	42	9	..	182 3
4. Of Brain, Nerves, etc. ..	140	67	11	25	33	4	128 9
5. Of Heart, etc.	23	2	4	7	8	2	45·2
6. Of Respiratory Organs ..	188	89	20	32	42	5	244·3
7. Of Digestive Organs ..	48	16	4	16	11	1	61·4
8. Of Kidneys, etc.	10	..	3	5	2	..	12·7
9. Of Uterus; viz. — Puerperal Disease, etc. ..	5	..	4	1	..	..	10·3
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	1	2	2	..	..	8 3
11. Of Skin, etc.	8	3	..	1	3	1	1·6
12. Malformations	4	4	..	..	..	..	3 6
13. Debility from Premature Birth, etc.	23	23	..	..	..	..	29 0
14. Atrophy	30	24	..	1	5	..	24 6
15. Age	33	..	..	..	14	19	51·2
16. Sudden	6	2	2	..	2	..	10·7
17. Violence, Privation, etc ..	32	14	7	7	2	2	30 9
Causes not specified.. ..	5	..	..	..	..	..	7 6

BOOKS RECEIVED.

The Food of London. By George Dodd. London: Longman and Co. 1856.

The Transactions of the American Medical Association. Vol. VIII. 1855.

The American Journal of the Medical Sciences. Philadelphia. January. 1856.

The Correspondence relating to the Lancet Sanatory Commission. London: Tegg and Co. 1856.

A Letter to His Excellency the Lord Lieutenant of Ireland, on the Judgment in the Case of Talbot v. Talbot. London: Ridgway. 1856.

Adolph Henke's Zeitschrift für die Staatsarzneikunde. 1856. Erstes Vierteljahrheft. Erlangen.

Journal für Kinderkrankheiten. 1855. Heft XI. und XII. 1856. Heft I. und II. Erlangen.

Schreber's Medical Gymnastics. Translated by H. Skelton. London and Edinburgh: Williams and Norgate. 1856.

Medical and Middle Class Education An Address delivered at the Chatham-street School of Medicine by Sir James Kay Shuttleworth, Bart. Manchester: Simons. 1856.

Painless Dentistry. By Walter Blundell. London: Churchill. 1856.

Il Ricoglitore Medico-Chirurgico. Dispensat. 1ra Gennajo. Napoli. 1856.

TO CORRESPONDENTS.

Dr. Septimus Gibbon.—Inquiry will be made for the manuscript, but we fear that it has been destroyed.

Mr. B. Moncriff.—We regret that the crowded state of our pages prevents us from inserting the interesting paper which has been forwarded to us.

M.D.—Such a student may pass the necessary examination for a Surgeon, and be admitted a member of the College.

We shall publish next week a biographical sketch of the late eminent French surgeon, M. Roux.

Alpha.—Medical prizes are no longer offered for such reports, as the whole of the department is now under the direction of one gentleman.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—You would much oblige by informing me whether you would advise me to pass the Junior Preliminary Latin Examination at Apothecaries' Hall, since there is a chance of the New Medical Bill passing through Parliament this Session; for I suppose that if the Bill passes, this examination will be done away with, and some new classical and mathematical examination be appointed by the new examining Board. I am, etc.

An early answer will oblige. A STUDENT.

[If the Bill passes, you will not have done yourself any injury by passing the Preliminary Examination, as the rights of Students who have conformed to existing laws will always be respected.—ED. *M. T. & G.*]

A Pupil of St. Thomas's.—The subjects for the Classical examination in October, 1857, at this Hospital, are not yet arranged.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—In the number of the *Medical Times and Gazette* for February 9, there appears a letter under the signature, "Experto Crede," relating to Bichromate of Potash for Preservative Solutions.

At the request of the Members of the Abernethian Society, I beg to inform you that this subject was brought before them by Mr. Savory, at their meeting held Jan. 31. "Experto Crede" makes use of so many of Mr. Savory's expressions as to leave little doubt on the minds of most that he must have been present at the meeting. He errs, however, in stating the strength of the solution, gr. ii. to ℥j. being generally sufficient.

Should "Experto Crede" be a member of the Abernethian Society, I would warn him against the appropriation of facts learned at its meeting, as their publication by others tends to deter members from bringing them before the Society. I am, etc. G. NELSON EDWARDS, M.B.

Hon. Sec. Abernethian Society.

St. Bartholomew's Hospital, Feb. 18, 1856.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Perhaps the following experiment, practised upon myself, may prove worthy a place in your journal, which is always open for the insertion of anything new. I am, etc. ALFRED WILLIAM MOORE.

2, Bessborough-street, Belgrave-road, Feb. 15, 1856.

CORPULENCY.

Fat is a necessary ingredient of the body. Nature, however, is sometimes too liberal in its supply; it then becomes burdensome, and subjects the object of its prodigality to much ridicule. The discovery of a certain remedy, under these circumstances, may prove a boon. The following experiment, or systematic plan of treatment adopted by myself, who am constitutionally fat, will clearly show that abstaining from bread- and fermented liquors will remedy this inconvenience in an incredible manner:—

Weighing 15½ stone I reduced myself, in three months, to 12½ stone, by strictly adhering to the following plan of dieting myself:—Breakfast early, consisting of 2 oz. of biscuit, 1 egg, 2 cups of tea or coffee; then fasted till five; my dinner consisting of animal food, etc., but no bread; likewise avoiding bread at my tea or supper.

My attention has often been directed to observe the tendency of our learned prelates, from the sedentary nature of their employment, to become fat. This could not have been the case with the priests of the Jewish nation, as their Legislator commanded them to eat unleavened bread; a round and jovial condition of the body not being compatible with a sacred office.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Knowing that you are a well-wisher to the interests of the Medical Profession, and as I do not know any one better than yourself at present to whom I may state any grievance, I take the liberty to intimate to you that the general Practitioners, at all events here, are most shamefully treated. It is thus:—There is a man in this town who is public Vaccinator, and who goes into every one's house, tradespeople or paupers', leaves a paper and tells the man or woman that they are to have the children vaccinated; they knowing no better, all go to this man to have their children vaccinated. Now Sir, I consider this a very unjust proceeding, I have been robbed of pounds by it, by this man going to the houses of my private patients. There is no explanation given when the paper is left, to say that the children may be done by their own Medical man, and it is, therefore, presumed that they are all to be vaccinated by this public man, which is done to the very great injury of the private Practitioner, he telling them that it will be of no expense to them. I hope you will be able to give us some redress, or inform us in what quarter to apply to make this evil known. I do say, Sir, it is a very unjust thing, that one Medical man should be a public Vaccinator; it is giving him an undue advantage over the rest of the Medical men, and I hope that when the amendment of the Act does take place, this complained-of injury may be done away with.

St. Ives', Hunts, I am, etc.

February, 19, 1856. O. ST. JOHN COOPER, M.R.C.S, & L.A.C.

COMMUNICATIONS have been received from—

Dr. P. B. AYRES; Mr. JOHN CAMPBELL; Mr. J. WINDSOR; Mr. E. WILKINSON; Mr. ALFRED W. MOORE; PLYMUTHENSIS; M.D.; Staff-Surgeon ROBERTS, Scutari; Mr. G. G. LOWNE; Mr. REED; A GRADUATE OF THE UNIVERSITY OF LONDON; Dr. HYDE SALTER; Dr. W. JENNER; Mr. SPENCER SMITH; Mr. J. Z. LAURENCE; Mr. G. SHANN; Mr. H. P. LAWRENCE, Bombay; Mr. ROBERT MCKINN; Mr. RICHARD GRIFFIN; Dr. H. C. ROODS; Mr. W. THORNTON, Crimea; Mr. B. MONCRIFF; Mr. W. PARKER; Mr. E. F. SANKEY; Dr. NEVINS; Dr. HUNT; Mr. WEEDON COOKE; Mr. ABRAHAM; Mr. T. HOLMES; Mr. WHITFIELD; Mr. HOFFENDEN; Mr. G. N. EDWARDS; A STUDENT; Mr. W. W. MORRIS; Mr. O. ST. JOHN COOPER; Dr. RAMSKILL; Dr. C. B. RADCLIFFE; THE ROYAL INSTITUTION; F. T. B; Dr. BAINES; A SUBSCRIBER, Hong Kong; Mr. G. A. TOWERS; W.; Mr. E. BLETCHLY.

APPOINTMENTS FOR THE WEEK.

FEBRUARY.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
23. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m. ROYAL INSTITUTION, 3 p.m.: Professor Odling "On Organic Chemistry." ROYAL BOTANIC SOCIETY, 3¾ p.m.
25. MONDAY.....		
26. TUESDAY	Operations at Guy's, 1 p.m.	ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m. ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy."
27. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. ROYAL COLLEGE OF PHYSICIANS.—*Gulstonian Lectures*: Dr. Kirkes "On some of the Sources and Effects of Contaminated Blood." 4 p.m.	HUNTERIAN SOCIETY, 8 p.m.: Dr. Barnes "On a New Method of Treating Placenta Prævia." MICROSCOPICAL SOCIETY, 8 p.m. Anniversary, 7 p.m. ROYAL SOCIETY OF LITERATURE, 4½ p.m.
28. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light." ROYAL SOCIETY, 8½ p.m.
29. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m. ROYAL COLLEGE OF PHYSICIANS.—*Croonian Lectures*: Dr. Owen Rees "On Calculous Disease and its Consequences." 4 p.m.	ROYAL INSTITUTION, 8½ p.m.: Professor Thompson "On the Origin and Transformations of Motive Power"

ROYAL MEDICAL BENEVOLENT COLLEGE.

(INCORPORATED BY ROYAL CHARTER.)

Patron.

HER MOST GRACIOUS MAJESTY THE QUEEN.

President.

THE RIGHT HONOURABLE THE EARL MANVERS.

Treasurer.

JOHN PROPERT, Esq., 6, New Cavendish-street.

The Council have much satisfaction in announcing the following List of DONATIONS and SUBSCRIPTIONS, as a gratifying proof of the increasing interest felt by the Profession in the success of the Institution, and on the part of the Public the recognition of its claim to general support.

The Council, being most anxious to effect as speedily as possible one of the original objects contemplated—namely, a CHAPEL, in which the whole of the establishment might assemble for Divine worship, have passed the following resolution :—

"That all Ladies presenting FIVE GUINEAS on or before the 1st of May next, with the view to defray the cost of building a Chapel, be constituted Life Governors."

The Council are induced to hope that Ladies will take advantage of this exceptional Resolution by constituting themselves Life Governors of the College, and by assisting, to the best of their ability, to carry out the proposed object. Were Four Hundred Ladies to contribute Five Guineas each, a sufficient sum would be raised to meet the estimated cost.

AMOUNT PREVIOUSLY ADVERTISED .. .. £33,339 5s. 3d.

	£	s.	d.
Ayre, Mrs. Edwin, Henton grange, Baldock, per O. Foster, Esq.	2	2	0
Butlin, Miss, Oakfield house, Rugby, per Dr. Duke	1	1	0
Barlow, Miss F. York, per W. Short, Esq. Harrogate	1	1	0
Bird, Henry, Esq. Newnham, per J. S. Collins, Esq. ... ... annual	1	1	0
Barter, Thomas, Esq. Bath, per Richard Wilson Brown, Esq.	10	10	0
Boughton, Mrs. Boughton hall, per J. Stedman, Esq. ... ... annual	1	1	0
Burnside, Rev. A. W. Farningham ann.	1	1	0
Collins, Mrs. John S. collected on card, Newnham	1	1	6
Chandler, Mrs. James, Epsom	5	5	0
Carter, Mrs. Boughton, per E. Garraway, Esq. Faversham ... ... annual	1	1	0
Cundale, — Esq. Norwich, per E. Copeman, M.D. ... ... annual	1	1	0
Caistor, Rev. Arthur, Caistor, per ditto annual	1	1	0
Davies, David, Esq. Castle green, Cardigan, per W. L. Nort, Esq.	5	0	0
Daniell, James, Esq. Ramsgate, per O. C. Walter, Esq. Broadstairs annual	2	2	0
Evershed, T. E. Esq. Billingshurst ann.	1	1	0
Eveleigh, Rev. James, Alkham Vicarage, Dover, per W. Sankey, Esq. annual	1	1	0
Fletcher, John Fletcher, Esq. Long Sutton ... ... annual	1	1	0
Fortescue, Mrs. C. Quay house, Kingsbridge, per W. C. Ford, Esq. annual	1	1	0
Griffith, T. D. Esq. Amlwich, per H. R. Hughes, Esq.	1	1	0
Girdler, Thomas S. Esq. Broadgreen, Croydon, per Dr. Sparkes	1	1	0
Goldsmith, J. Esq. Cloudesley terrace annual	1	1	0
Holmes, Mrs. P. per A. D. Dunstan, Esq. Holmes Chapel ... ... annual	1	1	0
Hunt, Robert, Esq. Bognor, Sussex annual	1	1	0
Hurle, Rev. Robert, Rectory, Blaisdon annual	1	1	0
Hargraves, J. Esq. Tunbridge Wells 4th donation	21	0	0
Hawkins, Charles, Esq. Savile row ...	10	10	0
Harvey, Wm. Esq. South Petherton, per G. F. Wills, Esq. Crewkerne	1	1	0
Hudson, T. St. John, Esq. Shepton Mallett ... ... annual	1	1	0
Hodding, Read, Esq. Salisbury, per W. M. Coates, Esq. ... ... annual	1	1	0
Hodgson, Mrs. St. Peter's, Thanet, per O. C. Walters, Esq. ... ... annual	1	1	0
Herbert, Esq. Markgate street, Beds, per P. Benson, Esq. ... annual	1	1	0
Hartland, Nathaniel, Esq. The Oaklands, Cheltenham	1	1	0
Jennings, Mrs. Dorchester, per Dr. Cowdell	5	0	0
Jeffreys, Mrs. Westbourne park, per E. Garraway, Esq. ... ... annual	1	1	0
Jekin, John, Esq. Eastbrook House, Dover per Wm. Sankey, Esq. ... annual	1	1	0
Lawton, Mrs. Lawton Hall, Cheshire	5	5	0
Morris, Charles, Esq. Campden, Gloucestershire ... ... annual	1	1	0
Morris, Henry, Esq. Gosberton, per Dr. Morris Spalding ... ... annual	1	1	0
Martin, Dr. G. A. Ventnor, Isle of Wight, per H. P. Tulliett, Esq. ... annual	1	1	0
Mackness, Mrs. Hastings, per. F. Ticehurst, Esq. ... ... annual	1	1	0
Macbean, A. Esq. Hanley, Staffordshire, per James Dale, Esq.	10	10	0
Percival, William, Esq. Northampton annual	1	1	0
Propert, Miss, New Cavendish street ann.	1	1	0
Pearson, Mrs. Edward, Tick Hill, Yorkshire, per R. O. Blythman, Esq. ...	1	1	0
Paynton, — Esq., Ringham-villa, Richmond, per F. G. Julius, Esq.	10	10	0
Pearce, Mrs. Southampton, per J. K. Sampson, Esq. ... ... annual	1	1	0
Power, Miss H. Atherstone, per B. Kirby, M.D. ... ... annual	0	10	0
Pratt, Spencer, M.D. Stamford annual	1	1	0
Pilkington, T. Esq. 31, Promenade, Cheltenham ... ... annual	2	2	0
Powell, W. M. Esq. 14, Springfield, Wandsworth-road... ... annual	1	1	0
Powell, Mrs. W. M. ditto	5	5	0
Pashley, J. W. Esq. Gainsburgh, per Dr. Makinder ... ... annual	1	1	0
Pocock, Mrs. Brighton ... annual	2	2	0
Philbrick, T. Esq. Stamford, per S. Pratt, M.D. ... ... annual	2	2	0
Robinson, Miss, Mainsforth, per Dr. Clark, Ferry-hill	1	0	0
Rogers, Dr. New Malton, per F. Barton, M.D.	1	1	0
Rainsford, Mrs. Henton-grange, Beds....	2	0	0
Radburn, J. Esq. Thrupp-grounds, Long Buckly, per Mrs. Robinson annual	1	1	0
Sheppard, James, M.D. Stonehouse, Devon, per J. N. Stevens, Esq. annual	1	1	0
Saner, James, Esq. Edmonton 2nd don.	5	5	0
Smith, Jas. Cox, Esq., The Distillery, Whitechapel rd., per C. Ray, Esq. ...	10	10	0
Surtees, Mrs., Mainsforth, per Dr. Clark, Ferry hill	1	0	0
Stanley, Mrs. Leonard, Stonehouse, collected by	0	17	6
Thompson, Lady M. Sheriff, Hutton park	5	5	0
Turner, E. W. Esq., Shrewton, Wilts, per Roger Turner, Esq. annual	1	1	0
Taylor, Thos. Esq., Brinklow cottage, per Dr. Finch ... ... annual	1	1	0
Watson, W. Esq., Long Buckly, per Mrs. Robinson ... ... annual	1	1	0
West, E. L. Esq. Launceston, per R. Bluitt, Esq. ... ... annual	1	1	0
Welsh, Dr. Downton, near Salisbury, per W. M. Coates, Esq.... annual	1	1	0
Woakes, E. Esq. Luton, Beds, per B. Benson, Esq. ... ... annual	1	1	0
Wilding, W. Esq. Montford, near Burnley, per Dr. T. Brown ... annual	1	1	0
Wethered, T. W. Esq. Marlow, per Mrs. F. Allen, Cheltenham	1	1	0

COLLECTED BY HONORARY LOCAL SECRETARIES AND OTHERS.

	£	s.	d.
By PETER COLSTON, Esq. HUSBANDS BOSWORTH.			
Amount previously advertised ...	9	19	6
Colston, Mrs. Husbands Bosworth don.	5	5	0
Cumberland, Mrs. Belgrave place, Tuffnell park, Holloway ... donation	5	5	0
Emerson, Mrs. Howard street, North Shields ... ... donation	5	5	0
Fargue, Mrs. L. Husbands Bosworth annual	1	1	0
Pell, George, Esq. Welford annual	1	1	0
Bolton, Andrew, Esq. Infirmary, Newcastle-upon-Tyne ... annual	1	1	0
By RICHARD TURNER, Esq. TUNBRIDGE WELLS.			
Amount previously advertised ...	51	15	6
Boyds, Moss William, Esq. Tunbridge Wells ... ... annual	1	1	0
Powell, Charles, Esq. ditto annual	1	1	0
Satchell, William C. Esq. ditto annual	1	1	0
Turner, Miss L. A. ditto donation	5	5	0
Turner, Miss Agnes, ditto donation	5	5	0
Reynolds, Miss, ditto ... donation	5	5	0
By Dr. DUKE, RUGBY.			
Amount previously advertised ...	21	4	0
Butlin, Miss, Oakfield house, Rugby donation	1	0	0
Evans, Rev. Charles, Barley road, ditto annual	1	1	0
By JOHN PRICHARD, Esq. LEAMINGTON.			
Amount previously advertised ...	146	16	0
Willcox — Esq. Warwick, 1853, 1854, 1855 ... ... annual	3	3	0
Pitt, W. Esq. Leamington, for 1855 ann.	1	1	0
Bateman, Dr. Norwich ... annual	1	1	0
Armstrong, J. Esq. Cheltenham annual	1	1	0
Armstrong, Mrs. J. ditto ... annual	1	1	0
Pitt, R. Esq. Wellesbourne annual	1	1	0
Ditto, collected by	1	5	0
By GEORGE F. B. HARRISON, Esq. DEVONPORT.			
Amount previously advertised ...	68	16	6
Batten, John W. Esq. Fore street, Devonport ... ... annual	1	1	0
Laity, R,, Esq. Kerr street, ditto ann	1	1	0
By H. POWELL, M.D. COVENTRY.			
Amount previously advertised ...	96	12	0
Armstrong, John, Esq. Cheltenham ann.	1	1	0
Armstrong, Mrs. Cheltenham annual	1	1	0
Rotherham, R. K. Esq. Coventry ann.	1	1	0
Wilmot, Miss, Coventry ... annual	1	1	0

ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE

INFLUENCE OF PRESSURE IN THE PRODUCTION AND MODIFICATION

OF

PALPABLE VIBRATIONS, AND MURMURS, PERCEPTIBLE OVER THE HEART AND GREAT VESSELS, LARYNX AND LUNGS.

By WILLIAM JENNER, M.D., F.R.C.P.,
Physician to University College Hospital, the Hospital for Sick Children, etc.

THERE are three patients still in the Hospital, and others have recently left it, in whom I pointed out to you some facts illustrating the influence of pressure in the production, intensification, and modification, of certain morbid sounds generated in the region of the heart.

To the case of the lad Exley, suffering from pericarditis, I lately directed your attention at length; I will recall some of the points of the case to your memory: when the stethoscope was placed over any part of the præcordial region between the fourth and seventh costal cartilages, two abnormal sounds were heard with each beat of the heart—one systolic, the other diastolic—I say systolic and diastolic, though they were not completely synchronous in point of time with the heart's systole and diastole. Loud as were the murmurs, especially the systolic, over the heart, they were not audible when the stethoscope was placed at a very little distance from the præcordial region. In character the murmurs were rubbing. I pointed out to you at the bedside, that the case offered us a perfect example of the to-and-fro sound of Dr. Watson. Moreover, the sounds impressed on all who heard them the idea that they were generated very near to the stethoscope. As the parietes of the lad's thorax were tolerably flexible, a moderate force sufficed to bring the two layers of the pericardium more closely into contact, and so the friction resulting from the passage over each other of the roughened visceral and parietal layers of the pericardium, was increased, and consequently the murmur generated by the friction was intensified. At one time it was supposed, (and is so still by some,) that murmurs generated in the pericardium could always be intensified by pressure in the young; and, also, that when a murmur, audible over the heart, could be intensified by pressure, that absolute proof was obtained that the murmur was generated in the pericardium.

However, we now know that neither of these statements is true; for, Dr. Walshe has observed one or more cases in which a pericardial murmur was diminished in loudness by pressure, the free play of the surfaces being impeded by the pressure. And the girl Stone, and the boys Perrin and Whiting, afford us indisputable evidence that a murmur may not merely be intensified, but may even be generated at the base of the heart, by pressure. These children are aged respectively 7, 9, and 10; the girl was the subject of chorea, one boy is suffering from enlargement of the spleen, the other from a skin affection; all have well-formed chests, but in all the thoracic walls are very flexible. Moderate force causes recession of the sternum, and of the cartilages of the ribs, and consequently of the parts subjacent.

In reference to these children, and several other cases of a like kind, which I have noted, I wish to impress on you the following facts:—

1. That no murmur was audible when the stethoscope was applied without force to the sternum, or to the cartilages of the ribs.

2. That when a moderate amount of pressure was exerted, through the medium of the stethoscope, on the sternum, over the base of the heart, a systolic murmur was audible.

3. That the loudness of the murmur varied with the degree of the pressure.

4. That pressure on the base of the sternum did not elicit a murmur.

5. That pressure on the sternum, opposite and above the fourth cartilage, and below the first costal cartilage, elicited a murmur.

6. That the healthy sounds of the heart only were to be heard at the second right costal cartilage, whatever the amount of force to which it was subjected.

7. That a moderate degree of pressure on the second left costal cartilages, or on the second left intercostal space, near the sternum, rendered a murmur audible.

Judging, then, from the situations in which the murmur was producible, viz., over the base of the heart and upwards to the first left interspace; the period in the heart's beats which it occupied, viz., the systole; and the manipulation required to elicit it, viz., pressure, I think there can be no doubt—1. That in these cases the murmur was generated in the pulmonary artery. 2. That the murmur was produced by the passage of the blood through a narrow part of the vessel into a wider part. 3. That the direct force exercised on the thoracic parietes by the stethoscope, was the immediate cause of the local diminution of the calibre of the vessel.

The only observer who has, so far as I know, recorded a case identical with those to which I have just referred, is Dr. Latham. You will find the case in his third Clinical Lecture; it is so admirably told that I must read it to you:—"A little boy, aged 8½ years, high-spirited and vivacious, but thin and out of health, was brought to me under a suspicion of disease of the heart. Its impulse was not felt beyond the apex, but there it was in excess; yet there was no larger space of dulness than natural in the præcordial region. Upon auscultation, however, this remarkable peculiarity was made out: when the ear or the stethoscope rested gently upon the præcordial region, no unnatural sound whatever was heard; but when either the ear or the stethoscope was applied with such force as to cause the ribs to sink a little below their natural level, then a loud bellows murmur sprang up. The space at which it was heard, and not beyond it, was just so far as the mouth of the stethoscope covered, when it was placed upon the cartilage of the third rib as a centre. This case, which occurred to me," continues Dr. Latham, "five years ago, has made me watchful ever since, lest haply I might create the murmur I was in search of; and it is no needless caution where the patient is young, and the frame-work of the chest is yielding. Never, indeed, the chest being not deformed, never but in this single instance have I produced a murmur simulating that of valvular disease. But very often, when over-earnest in what I was about, I have pressed too heavily on the præcordial region, a sort of jarring sound has reached my ear, and brought with it the suspicion of disease; until setting the heart free from the weight and the restraint which I had inadvertently imposed on it, I have at once lost the sound and the apprehension too, which had arisen from my own awkward manœuvring."

Since, however, my attention was directed to the subject by hearing the produced murmur in the girl, Stone, I have found that I have been able to produce a basic systolic murmur in a large number of healthy children, and I am satisfied that Dr. Latham's caution is highly necessary, viz.—that when examining a child you must be careful not to exercise much pressure at the base of the heart, lest you produce a murmur which may cause considerable anxiety in regard to the ultimate fate of your patient. For you will remember that the murmur produced by the weight of your own head on the stethoscope placed over the base of the heart, in the girl Stone, was infinitely louder than you or I ever heard in the same situation from mere anæmia, or spanæmia, as what we lately knew as anæmia is now often called. Had I not detected the cause of the murmur, I should have supposed the child to be the subject of congenital disease of the heart.

In the girl May, lately admitted into Ward 3, because the subject of tapeworm, we found that pretty firm pressure on the thoracic walls over the pulmonary artery modified materially the first sound, and although we could not say that a murmur was produced by the pressure, we could not but admit that so long as the pressure was maintained the first sound was not healthy.

This again confirms the accuracy of Dr. Latham's observations, recorded in the quotations I have read to you from his lectures.

I have told you that the murmur produced by pressure over the base of the heart, in the cases in the Hospital, originated

in the pulmonary artery; I must add that I doubt much whether pressure can be exercised over the base of the heart, powerful enough to diminish the calibre of the aorta, and for these reasons:—1. Because of the relative situation of the aorta and pulmonary artery; 2. Because of the comparative thickness of its walls. I am inclined, then, to think, that systolic basic endocardial murmurs produced or intensified by pressure have their origin in the pulmonary artery. So when in doubt as to whether a systolic basic endocardial murmur is generated in the pulmonary artery or aorta, I have derived some assistance in arriving at a correct conclusion from a consideration of the effect produced on it by pressure.

The little boy Perrin now in Ward 4, and whom you can see after the conclusion of the Lecture, affords us an example of a very common condition, viz., one in which the patient can exercise pressure on his own pulmonary artery, sufficiently powerful to generate a murmur. So long as this child is inspiring there is no cardiac murmur, but at the termination of expiration there is a loud blowing, systolic murmur; this murmur has its point of greatest intensity at mid-sternum, opposite the third interspace; it is louder at the first left than at the first right intercostal spaces next to the sternum; it is not audible at the apex. These facts show the pulmonary artery to be the seat of the murmur. During forced expiration the anterior surface of the thorax is flattened, the antero-posterior diameter of the thorax is considerably shortened, and so the pulmonary artery is pressed on. This child, as you know, is remarkably anæmic, there is a very loud venous hum in his neck, and it is difficult to place the stethoscope over his carotid artery without compressing it enough to generate a systolic murmur.

Compression of the pulmonary artery by the patient in expiration, or by the Physician with his stethoscope, is a common determining cause of the basic systolic murmur so often heard in anæmia. In anæmia, too, the arterial walls appear to resist pressure less strongly than in health, and this is one of the reasons why it is sometimes almost impossible to place the stethoscope on the carotid artery of an anæmic young woman, without diminishing its calibre at the spot, and so generating a loud murmur.

But the pulmonary artery is sometimes compressed by the descent of the sternum, during expiration, sufficiently to generate a murmur when the patient is not anæmie; I saw a capital example of this a day or two since, in a fine healthy-looking young man. My opinion was asked about him because, among other ailments, he was supposed to have valvular disease of the heart, indicated by a bruit at the base. On first applying my ear to his chest, I heard no murmur; then I heard a loud blowing sound, and then again I lost it for a little while, my stethoscope remaining all the time at the same spot; viz., over the sternum, opposite the 4th costal cartilage. By examining the case more closely, I found that this gentleman was one of those whose thorax is considerably flattened during deep expiration, that the murmur was only heard at the termination of expiration, and that it was audible at the 2nd left, but not at the 2nd right, cartilage; I concluded, therefore, that the murmur was generated in the pulmonary artery when that vessel was compressed by the receding sternum. It may be supposed, that in such cases there is really an organic aortic murmur, and that during inspiration it is inaudible, in consequence of the advance of the sternum, and the interposition of a little lung between the aorta and the sternum; but it is not so, for this reason, a murmur so loud as is heard in some of these cases would assuredly be heard at the top of the sternum, and at the aortic or second left cartilage, even during the deepest inspiration.

And now, as to the form of the chest in which basic and systolic murmurs are, or can be, generated by pressure. You may remember, that I directed your attention at the early part of the session to two great varieties of the thorax in regard of form, viz., one in which the lateral diameter is considerable, the antero-posterior small, and the other, in which the antero-posterior diameter is long, the lateral comparatively short; the latter variety includes all forms of pigeon or chicken breast, and among others the rickety thorax. It is in the former of these two varieties of thorax, that these pulmonary artery murmurs can be generated by pressure. In the pigeon-breasted thorax, the sternum is placed at a considerable height above the pulmonary artery, and cannot be forced against it by the physician or the patient; and I have demonstrated to you, that emphysematous lung fills up the space between the receding sternal ends of the ribs and the prominent sternum in the rickety thorax. I have examined a very, very large number of children with rickety thorax, and other forms of pigeon-breast, but could never even modify the cardiac sound; while it is rare to examine a flat flexible thorax, and not be able to produce a basic systolic murmur. The three conditions, then, favouring the production of a murmur by pressure, whether exercised by the physician or patient, over the base of the heart, are:—1. Narrowness of the chest from before backwards. 2. Flexibility of the thoracic parietes. 3. Anæmia. In anæmia, remember, 1st. That the walls of the vessels are more flaccid than in health; 2nd. That the blood is poor in solid constituents, and, therefore, more readily thrown into sound-generating vibrations than is healthy blood.

Although I have no case to illustrate the fact, I ought not to omit to tell you that, when the abdomen is enormously distended the relation between the ventricles and the orifice of the pulmonary artery and aorta is altered, and a murmur may be the consequence. A well-marked case of this kind fell under my observation some time since; the patient was the subject of ovarian dropsy; at the base of her heart a loud blowing murmur was heard, whether generated in the pulmonary artery or aorta could not be determined; perhaps a murmur originated in both. She was tapped, and all murmur disappeared. In such cases the apex of the heart is elevated.

The lungs, again, may compress the great arterial trunk in the thorax. The man in Ward 4, suffering from emphysema and bronchitis, illustrates my present point. You remember that when that man coughs violently, the radial artery becomes full and hard, and the only movements perceptible in the artery are those communicated to it at each tussive succussion; during the cough the artery seems to be so full that the heart's beats no longer distend and elongate the vessel; it appears filled to its utmost. Now, it is not that the artery is distended because the blood cannot pass freely through the capillaries of the compressed lung, or through the compressed large veins in the thorax. It is not because the flow of the venous current is impeded, that the arterial current is stayed; but it is that the blood is driven during the violent expiration in greater quantity into the artery; it is the *vis à tergo* that is increased; and I say so, because if you press the artery between your finger and the bone, so as to stop the current at that spot, you still feel the powerful influence exerted by the cough in increasing the quantity of blood in the part of the artery between your finger and the heart.

The degree of tension of the artery during coughing is, in some degree, a measure of the strain on the lung in powerful sudden expiration, and hence of the probability of the occurrence of emphysema.

There is one vessel so powerfully compressed during the violent expiratory efforts of coughing, straining, etc., that I must specially direct your notice to it; I mean the internal jugular vein. This vessel is so situated at its termination as to be compressed, during the efforts in question, between the lung and the clavicle, and the clavicular origin of the sterno-cleido mastoideus. The more bulky the apex of the lung, the more completely is the flow of blood out of the jugular vein prevented. In vesicular emphysema, the apex of the lung is often increased in size; and I have repeatedly pointed out to you the supra-clavicular bulging when the patient was coughing, and also the distension of the jugular that accompanied it. Now, if you call to mind what I told you a few minutes since, respecting the distension of the arteries in consequence of compression of the great arteries in the thorax during coughing, and what I have now told you about the special compression of the jugular, you will not wonder that a vessel now and then gives way in the brain, when the patient is making a violent expiratory effort, either with complete closure of the glottis, as in violent muscular efforts, or with incomplete closure of the glottis, as in coughing.

I am now about to call your attention to another class of phenomena—to an altogether different effect of pressure on tactile and sound generating vibrations of the heart and great vessels.

The girl, Elsworthy, lately a patient in Ward 3, because the subject of chorea, some time before admission into the Hospital suffered, as so many choreic children do, from acute rheumatism, and, as a consequence of her old attack of rheumatism, has an organic mitral regurgitant murmur,—*i.e.*,

a systolic murmur, having its point of greatest intensity at the left apex, or a little above and outside the apex, audible under the angle of the left scapula, and not heard at the top of the sternum. You remember how often I have told you, that to determine the seat of a murmur you must consider—the time of the heart's beat at which it occurs, the point of the præcordial region at which it is the loudest, and the direction in which it is carried. When the hand was placed over the spot where the apex of the heart impinged, provided no pressure was exerted on the part, a thrill was perceptible; this thrill ceased when the hand was firmly pressed on the cardiac region. The woman in an adjacent bed suffered from the same disease; the thrill in her, also, was systolic, and imperceptible when the hand was firmly pressed on the præcordial region. The same signs were observed in the man Searle, on whose case I lately lectured.

Further, when the stethoscope was gently applied over the apex of the heart, we heard a long, deep-toned, loud, systolic murmur, conveying to the mind the idea that it was generated near to the ear. When *firm pressure* was made with the stethoscope on the thoracic parietes, over the point where the apex impinged, the murmur was at once modified, its duration was considerably shortened, it was not so loud as before, its tone was less deep, and, at the same time, it seemed as though generated at a greater distance from the ear than before. All of you appreciated the variations produced in the murmur by pressure.

In the man and the woman the effect of pressure on the mitral regurgitant murmur was the same in kind, and almost in degree, as in the girl.

As to the cause of this modification of the murmur by pressure: it seems probable, at least, that the determining cause of the long murmur at the apex, in such cases as these, is twofold. The blood driven by the contraction of the left ventricle through the partially-closed mitral orifice, throws its valve, and is itself thrown, into sound-generative vibrations; the vibrations of the valve and of the blood are communicated to the walls of the ventricle, and by them to the thoracic parietes.

The effect of pressure is to diminish the extent of the vibrations of the ventricular walls; hence they are no longer appreciable by touch, and so the thrill ceases. Over the directly-induced vibrations of the blood it probably exercises comparatively little power, and they are still conveyed to the ear. Some of the sound-generating vibrations then are continued, because the pressure is not perfect; all the palpable vibrations and some of the sound-generating vibrations are stayed. If you fill a glass with water, place your ear near to it, strike it sharply, and then place your finger on it, you will find a modification in the ringing of the vessel similar in kind to what was induced in these cases by the pressure of the stethoscope—the ringing of the glass is less long continued, less loud, and the ringing sounds more distant than before the finger was applied.

The more superficial and the more lax the coats of the vessel in which vibrations are to be detected by touch, the more readily are they stayed by pressure. This was well illustrated by the case with which the strong vibrations perceptible by a light touch in the jugular veins of Searle were lost when the finger was more firmly placed on the vein. Friction, tactile vibrations, are usually, as in the woman with pericarditis now in the ward, stronger the more powerful the pressure exerted.

To pass from the circulatory to the respiratory organs: I cause a man with a healthy chest to say "round," and place my hand gently on his inferior dorsal thoracic region. I feel a fremitus. I press firmly with my hand, and the thrill or fremitus is scarcely perceptible, or perceptible only at the margin of the hand where the pressure is little or nothing.

Again, I make the man say "round," and, by my hand, placed very gently on his thyroid cartilage, I endeavour to appreciate the strength of the vibrations of his larynx. I now have a pillow pressed pretty firmly against his dorsal thoracic region, so as to check, to a considerable extent, when he speaks, the vibrations of this part of his thorax. I bid him say "round," placing my finger on his thyroid cartilage as before, and I find its vibrations are less strong than they were before. This seems to demonstrate that the vibrations of the air produced in the larynx are, in persons with healthy chests, strengthened in the larynx itself by the convibrations of the thoracic parietes.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

AN ACCOUNT OF THE WOUNDED OF H.M.'S FIFTY-FIFTH REGIMENT,

ADMITTED INTO THE FIELD-HOSPITAL, SEPTEMBER 8TH, 1855.

BY JAMES H. M'COWAN, M.D.,
Assistant-Surgeon 55th Regiment.

THE history of the wounded of a particular regiment, even of one which has been seriously engaged, and has suffered severely in action, has rarely formed the subject of special narrative. General Hospitals, well in the rear of an army on active service, have usually supplied the *matériel* for the records of Surgical experience; and, indeed, it is not to be wondered at, when we consider how much more extended the field of observation is, and the opportunities there afforded of following cases to a conclusion, and of watching them narrowly during their progress. Surgeons in the field have, however, duties of quite a different, and, perhaps, more important character to perform, than their brethren in General Hospitals, and from their practice something interesting may be learned—they have to perform operations on the spot at once—from a *coup d'œil*, so to speak, of a case, they must form an opinion, and be prepared to act on that opinion unhesitatingly; they cannot wait, however much it may be desired, for the advice of a colleague or consulting Physician; they must rely on their own knowledge and personal resources; and it is in proportion as these are developed that the practice of one differs from that of another.

The Field Hospital of this regiment, situated on the extremity of a slope forming one side of the Woronzoff ravine, where the latter bifurcates and joins the plateau of Inkermann, is about two miles distant from the Redan. The wounded had, therefore, to be brought this distance. Ambulance-wagons and mules carrying litters and chairs, performed the service of transporting those who could not walk, with wonderful rapidity. Before 5 o'clock, p.m., the whole, with the exception of a corporal, who was not found until midnight, were comfortably in bed, and had been nearly all attended to.

The 55th Regiment being in support of the storming column, told off from the Second Division, suffered severely. Out of 10 officers who went into action, 1 was killed, 5 were severely, and 2 were slightly, wounded. In a number of 492 sergeants and privates engaged,

23 were killed,
111 were wounded.

Of the 111, only 95 (a) presented a sufficient amount of gravity to demand admission into Hospital. An analysis of the 85 admitted into Field Hospitals gives the following results:

11 were dangerously or mortally wounded,
52 were severely wounded,
22 were slightly wounded.

And, in regard to the position of the wounds, we find:—

19	were wounds of	head, face, and neck.
16	,,	upper half of trunk.
3	,,	lower half of trunk.
29	,,	superior extremity.
18	,,	inferior extremity.

From this statement, it follows that more than two-thirds were wounds of the upper part of the person,—a circumstance to be explained by the fact that the men, fighting behind parapets and in trenches, exposed, as a rule, only the upper portions of the body. In connexion with this subject, and by way of contrast, I may state that, at the battle of Alma, where there was no cover from the enemy's fire, and where the 55th also suffered severely, out of 92 wounded, only 36 were found to be wounded in the head, thorax, and upper extremity. More than one-half of the wounds were inflicted by rifle-balls, generally conical in shape; next in order of frequency came those by grape-shot, slugs, and shells. Only 2 were returned as bayonet-wounds, one in the thigh, and one in the foot, neither of which was in the least degree serious.

In many cases the balls were so deformed, and contorted into so many different shapes, that it was difficult to recognize

(a) Ten were sent to the General Hospital in Camp; their injuries are unknown.

a rifle-ball from a slug. In several cases the bullet was literally bisected; and while one portion could be easily detected and cut out, the other lay concealed in quite a different situation of the wound, and was not found for a week or two afterwards.

Seven capital operations were performed—five on the evening of the 8th. Of these, three were amputations through the humerus, necessitated by extensively lacerated injuries of the soft and hard parts of the forearm, complicated with wound of the elbow-joint. A fourth was an amputation at the lower third of forearm for the total destruction of the fingers, carpus, and wrist-joint; and the fifth was an amputation at the shoulder-joint. In this case a grape-shot almost carried away the arm close to the neck of the humerus.

All these were flap operations; the whole of them, with one exception, in the course of six weeks were completely healed. The exception alluded to was an amputation through the humerus, which proved fatal on the 24th day: multiple abscesses were found disseminated throughout the lungs.

The 2 remaining capital operations may be classed as secondary, and both proved fatal. One was performed on the evening of the 9th ult. The patient, G. G., a stout, healthy man, aged 39, received a severe shell-wound of the thigh, the fragment of shell entering the substance of the thigh, immediately below Poupart's ligament, and close to its point of insertion, taking an outward and downward direction, produced a large lacerated wound of the soft parts; divided the femoral artery, but there was no hæmorrhage, and fractured the femur at its upper third. When received into Hospital, his state can only be described as one of deep collapse, and, unless he rallied considerably under the use of stimulants, any idea of operative interference could not be entertained.

It was not until the following evening that any operation could be performed with the least chance of success, and even then it was undertaken more at his own urgent entreaty. The patient, being put under chloroform, was submitted to the amputation through the neck of the femur, a large flap being formed from the posterior aspect of the thigh, and reflected over the cut surface. There was little blood lost. He lived only sixty-two hours after the operation.

The other was an obscure and interesting case. The patient, a stout, healthy grenadier, W. G., aged 29, received a wound in the popliteal space. All that could be seen, on examination of this region, was simply a small orifice, about the size of a sixpenny piece, with inverted edges, and situated about the middle of the space, a little, however, on its outer aspect.

On introducing the finger, the direction of the wound was found to be immediately forwards; and, although the ball itself could not be felt, it was considered highly probable the bullet was lodged in the knee-joint. This supposition seemed confirmed by the two following symptoms:—the patient referred the pain he experienced to the inner aspect of the head of the tibia, and the joint, maintained generally in a state of semi-flexion, admitted of very limited motion.

It was determined to watch the case. On the third day, the principal Medical officer, on visiting the Hospital, examined this case. He said, he detected the ball in the joint, and advised the immediate amputation of the limb. Dr. Gair, in my absence, performed the operation; and for the first three days everything went on so favourably as to induce the prognosis of a speedy and good recovery. However, at midnight of the third day, secondary hæmorrhage took place during the patient's sleep, and before assistance reached the ward he was dead. On examination of the stump, union by the first intention seemed universal, except at the inner corner of the flap, where there was a small cavity, the ligature was found loose in the wound, separated from the artery; the mouth of the femoral artery was quite patent, as if clean cut through, its lips being slightly everted. The ball was found impacted in the semilunar cartilage over the internal head of the tibia. On the corresponding condyle of the femur was a distinct indentation; there was not the least evidence of even commencing synovitis.

If any case of gun-shot injury is suitable for the operation of "excision of the knee-joint," this was just the case; and I fully intended, if any operation was deemed necessary, to have had recourse to excision. At all events, death by secondary hæmorrhage would have probably been avoided.

On the evening of the 8th, six partial amputations of the hand were performed. All these were necessitated by gun-shot and comminuted fractures of the metacarpal and phalangeal bones. In one case the fore and middle fingers were removed; abundance of skin for a covering was found in the radial side of the fore-finger; the heads of the corresponding metacarpal bones, being fractured, were removed. This man recovered in four weeks, and had a useful hand. I need hardly add, that all the capital operations were performed, the patients being first put under the influence of chloroform; indeed, the amputation through the neck of the femur could not have been performed without anæsthesia, with any prospect of the patient surviving the shock.

As instances of conservative Surgery, I may state that compound fractures of the long bones, with the exception of the femur, unattended with extensive laceration of the soft parts, were attempted to be saved. Thus, two cases of compound fracture of the radius and ulna were so treated, and both have done remarkably well. In one the ball, in traversing the limb, had become divided into two portions; while one escaped, the other was found lodged in the inter-osseous space.

Private J. D., aged 26, sustained a compound fracture of the ulna alone, from grape shot; the middle third of this bone was removed, taking care to leave the two extremities bound down by uninjured inter-osseous membrane. A fortnight ago, this patient left the Hospital with the wound quite healed, and from the circumstance of the lesion of the soft parts running parallel to the axis of the limb, there is every reason to expect a certain amount of the normal motions of the muscles will be regained.

Another instance is to be found in the case of corporal O. D., aged 26, who sustained a compound gunshot fracture of the tibia and fibula, about two inches above the ankle-joint. The limb was placed on the ordinary M'Intyre's splint, and, as much as possible, retained *in situ*. A large quantity of spicula of bone, including nearly the whole thickness of the tibia and fibula, were removed from time to time. To our astonishment, we quarried one day the half of the bullet out of the innermost recesses of the tibia; we had made up our minds that the ball had escaped, from the circumstance of there being a large opening and counter-opening. This patient, on November 10, was walking about with the help of crutches; and on the 29th ultimo, he left this Hospital with a limb almost as straight as the other, and only slightly shortened. This is our third case of successful treatment of compound fracture of the leg, since the battle of Alma.

Only one wound presented the least tendency to sloughing, and this was quickly stopped by the application of lint soaked in Sir William Burnett's solution diluted with six parts of water. The lint was kept applied for twenty-four hours; at the end of which period, there was a distinct dry crust formed on the surface of the sore, and in the course of two or three days more, this crust separated, leaving red, healthy granulations beneath.

Camp before Sebastopol, December 1, 1855.

CASES ILLUSTRATING THE ETIOLOGY AND TREATMENT OF EPILEPSY.

By HENRY HUNT, M.D.

(Continued from page 134.)

Seeing the remarkable effect of the acid treatment in the last case, I was induced to try it in one which had been long considered hopeless. I attended the case in 1846, but failed to afford the slightest relief, and from that time the disease steadily increased in violence, and had so far injured the memory, and impaired the patient's once fine intellect, that there appeared to be every probability the disease would run its usual course, and ultimately destroy both mind and body. Under these circumstances, the patient and her friends readily agreed to adopt the acid treatment, and were rewarded for their patience, perseverance, and confidence by its perfect success.

Case 3.—Miss ——, unmarried. The epilepsy commenced at the age of 35, after she had experienced a long series of troubles, anxieties, and great fatigue. The first fit was preceded by a considerable hæmorrhage, brought on at the

menstrual period, partly by excessive fatigue, and partly by nervous agitation. She had apparently recovered from the effects of this loss of blood, when she fell suddenly from her chair in a fit, while instructing her niece. This was in 1846. From that time the fits have returned every three or four weeks, and generally in her sleep. They are usually preceded, for three or four days, by a sensation which, for want of a better name, she calls "faintness." She described it "as resembling what she imagines the feeling of death to be." This sensation, however, is sometimes experienced without its being followed by a fit. It prevents articulation while it lasts, and when the power of speaking returns, she is unable to find the words she wants. This deathlike feeling does not take away the power of standing nor walking; but when it has passed off, be the time of its duration ever so short, she feels as if a week or more had intervened between the events that had occurred immediately before the attack and her recovery. When the period for the recurrence of a fit is approaching, her sleep is disturbed, and she often awakes with a sensation of strangulation. If the fits are brought on by fear, anxiety, or a shock, she understands they last twenty minutes; but, if they come on without any apparent cause, they continue only two or three minutes; they are generally followed by a deep sleep for several hours, and afterwards by violent palpitations and irregular movements, or by slow and laborious action of the heart; and by a copious flow of limpid urine. Not only is the memory much impaired, but her powers of apprehension and of reasoning are also blunted, and she has lost the firmness of nerve for which she was previously remarkable; and she has been haunted for several years by a feeling of an indescribable dread, as if some great misfortune, or a fit was impending, a feeling which always increases in proportion as the time of their return draws near. I had an opportunity of witnessing an attack in 1852. I was awoke about four o'clock in the morning by a scream, and, when I reached the lady's room, I found her in a violent fit; the convulsions lasted several minutes, and were followed by a deep comatose sleep. At this time her general health appeared good; the bowels regular; the discharges rather paler than natural; the urine of a pale citron colour, with opalescent crystals on its surface; the specific gravity 1·006; it was very slightly acid; and there was a cloud of the phosphates deposited on boiling. I regret that I was unable to have it carefully analyzed. The catamenia were regular, and normal in quantity and quality. The tongue was clean; the pulse feeble and easily accelerated. The skin was tinged with a bluish-grey colour, the consequence of her having taken large doses of the nitrate of silver for several months. There was a general want of nervous power, which obliged her to have recourse to sal volatile or wine three or four times a-day, to enable her to perform her usual domestic duties.

The acid treatment was commenced in the summer of 1852; the nitro-muriatic acid bath was ordered to be used every night, and 20 minims of the dilute acid taken twice a-day in a glass of water, and an occasional dose of pills composed of equal parts of extractum colocynth. comp. et pil. galbani comp. I directed that her diet should consist of a moderate quantity of animal food, blended with green vegetables and sub-acid fruits, and that she should drink half-a-pint of cider with her luncheon and dinner.

The beneficial effects of this treatment were as quickly made evident as in the last case; first, by an improved tone of the nervous system, which enabled her, in the course of a month, to dispense with the stimulants she had been reluctantly obliged to take. The next perceptible improvement was a diminution of those sensations she called "the lesser faintnesses," and there was no return of the fits for thirteen weeks after the treatment was commenced. At the expiration of that period she unfortunately received a severe shock from being present at the sudden death of a friend, and she was also exposed to great fatigue and anxiety, which interrupted the use of the bath and other remedies. On the 3rd of September, a few weeks after they were discontinued, she had a fit, but it was not so violent as before, neither was it followed by the usual sleep; and there was another fit on the 8th, which left great weakness. The bath, etc., were immediately resumed, and soon produced an evident improvement, both in the patient's strength and the gradual removal of those feelings of undefined dread which had occasioned her so much distress. Unfortunately, at the expiration of two months, the serious illness of a relative occasioned great anxiety, and obliged her to overtax her strength, and to discontinue her remedies. She immediately began to decline, and on the 8th of December, four weeks after the treatment had been discontinued, she had three fits in quick succession. The bath, etc., were again resumed, and steadily employed for six months, excepting when the acid irritated the skin. On the 28th of February, 1853, she suddenly became weak, but not insensible; nor was the weakness preceded by the usual nervous symptoms. On the 22nd of March there was a similar attack, but still slighter than the former: it only amounted to an uncomfortable sensation, which quickly subsided; from that time to this, now more than three years' there has not been the least indication of a relapse, and, what is not only satisfactory, but important in regard to the power of the acids to restore tone to the nervous system, she now remembers passing events nearly as well as before her illness; but much of what had occurred during it, even what at the time was of a painful nature, as well as a large portion of her previously acquired knowledge, have escaped altogether; yet she feels assured that the latter is gradually returning, and her Medical attendant is of opinion, judging from the evident improvement that is still taking place, that her memory will be ultimately restored.

To confirm the cure, I advised an occasional use of the bath for a fortnight at a time, whenever the colour of the secretions from the bowels should indicate a deficiency of bile, or the urine be abnormally pale for many days together.

I regret that I cannot give a more minute description of the various symptoms which manifested themselves in the progress of the cure, as my patient lived at a great distance from London; but I was informed that the acid bath produced great irritation on the skin, and slight sloughs in the early part of the treatment; and that, in the course of a few months, the urine occasionally deposited a red sediment, which had not been observed for many years before the first occurrence of the fits.

From the want of a minute and accurate analysis of the urine, it is impossible to determine whether the system was in exactly the same state as in the two former instances; yet, as well as I could judge from the general symptoms, there was evidently a great similarity between them, and I think no doubt can be entertained that the relief was owing to the treatment adopted; for, although the relapses occasioned a temporary distrust, they clearly prove its efficacy: 1st, from the fits having recurred on two occasions when the bath had been discontinued for a few weeks; 2nd, from the improvement which almost immediately took place each time on its resumption.

The next case is an equally important one, as it also shows the general power of this novel application of acid remedies in restoring strength to, and allaying the morbid sensibility of, the nervous system, as well as in curing epilepsy.

Case 4.—Mr. —, aged 22, was first attacked with epilepsy at the age of 13. His illness was attributed to an insufficient diet, and to the many privations and hardships he had been exposed to at a public school. The fits at first returned irregularly, but for several years they have recurred about every three or four weeks; he, however, has seldom passed many days without experiencing minor attacks, similar to those nervous sensations described in the last case as faintness. The disease gradually impaired the tone of the nervous system, and at length rendered it so sensitive that any sudden sound, such as a loud ring of a bell, immediately produced a severe shock; and, if the period for a return of the fits happened to be near, it almost invariably brought one on. The disease has also seriously injured the intellectual faculties, so as to render him incapable of study, or of any pursuit requiring steady application, or continuous thinking. Although not insane, he became irritable and violent, and so completely lost all control over himself, that he was obliged to be separated from his family, and placed under the superintendence of a Medical man.

I first saw him in January, 1854. His general health then appeared good; his complexion was pale and transparent; his appetite voracious. He suffered from indigestion, which, however, arose more from the quantity of food he ate than from any disorder or inherent weakness in the stomach itself, and he was always benefited by moderate purging. The tongue was perfectly clean, and he was free from pain or confusion in his head. The pulse was soft and compressible. He

gave me a clear account of his symptoms and habits; but I was afterwards informed, that it was rather a cunning description, for the purpose of concealing his propensities than a true statement. An opportunity was given me of witnessing the effect of a sudden sound on him. The house-bell was rung loudly. He immediately sprang from his chair in great distress, his breathing was suspended, his heart fluttered, and his pulse beat rapidly, and he did not recover from the shock for several minutes. The urine was pale, and passed in considerable quantity. It was slightly acid; the specific gravity, 1·0247; dried residue, 5·81 per cent.; ash in residue, 1·80; chloride of sodium in the ash, 1·005, and only a trace of urea.

The acid treatment was immediately commenced, but, through some misunderstanding, it was imperfectly carried out. He simply sponged himself with a solution of the nitro-muriatic acid once daily for a few minutes. As this gentleman did not live in London, I did not see him after the first interview for several months; I then ascertained the mistake, from finding the treatment had failed to produce any sensible effect either on the skin or the disease.

It was not until August, 1854, that he began to use the remedies properly, and to take the acid internally. As circumstances prevented the employment of the bath, he merely sponged the whole body twice a-day, for twenty minutes at each time. His bowels were kept freely moved by the compound extract of colocynth, and he was made to be more moderate in his diet. In the course of a month, the beneficial effect of the treatment was made evident by a gradual diminution of the morbid sensibility of the nervous system, which enabled him to bear the ringing of the bell, and other sounds, without experiencing any unpleasant feeling. The next improvement was the gradual cessation of the minor nervous attacks, and by a prolongation of the interval between the fits, and a diminution in the violence of the convulsions, until they entirely ceased. The last fit occurred on the 23rd of March, 1855, just six months after the acids were properly employed. This gentleman has since remained well, and is so much improved in temper, and has acquired such a control over himself as to permit his returning to his friends, and to be employed in superintending a small farm.

Being desirous of ascertaining what alteration had taken place in his urine since his recovery, I submitted a specimen, which was passed before breakfast, to Mr. Medlock, for examination, and the following is his report:—

Specific gravity	1·026
Percentage of solid residue . .	5·05

The urine is strongly acid to test paper, and, on standing, deposited a considerable quantity of pure uric acid; in other respects it appears to be of a healthy character, urea and phosphates being present in the usual proportions.

Case 5.—M. C., aged 11, was brought to me in September, 1853. He had been afflicted with epilepsy about two years. The first fit occurred at school, where he had been insufficiently nourished. It was attributed to a fright occasioned by a trick played on him by his schoolfellows. He was naturally quick and intelligent, but a sensitive child. Some time before the first fit he appeared dull, and unable to learn his lessons as well or as easily as he had been accustomed to do, and also to be unusually fearful. When I saw him he was pale and delicate, and his complexion presented the same transparency as in the preceding cases. He was very nervous and fearful, and showed evident terror at the idea of being left alone His tongue was clean, his pulse quick and small, his eyes of a pearly whiteness. The bowels rather confined. The discharges were described as being pale, and the urine also pale, as well as clear. I prescribed the acid bath, and the internal use of the nitro-muriatic acid, and a sufficient quantity of an electuary, composed of equal quantities of sulphur, bitartrate of potash and syrup of ginger, to regulate the bowels.

The child was brought to me again at the end of a month, when I learnt that he had a fit a few days after his first visit, but none afterwards. He appeared stronger, and much less nervous and timid; and he allowed himself to be left alone for a few minutes without hesitation. I recommended a steady use of the same treatment, and that he should spend as much time as possible in out-door exercise, and that lessons of every kind should be strictly avoided. I did not see this patient again, but I was informed that the treatment had been so successful, and had apparently effected so complete a cure, that his parents thought they might safely send him to school after the Christmas vacation. They did so, and he appeared to bear his work pretty well for a few weeks; he then began to feel confused, and soon afterwards he had a violent fit, in which he died.

This case, however, showed the power of these remedies to correct the state of the system on which the epilepsy depended; not only by the cessation of the fits, but by the removal of that morbid nervous terror from which epileptics so frequently suffer; and I think we may assume, judging from the other cases, that if the treatment had been continued longer, and more time had been allowed for the brain to recover strength before the intellectual faculties were again exerted, the epilepsy would have been permanently cured, and the child's life preserved.

Case 6.—Miss L., aged 56, had suffered for six years from dizziness, which generally came on walking out immediately after breakfast, sometimes so suddenly that there was neither time to return to the house, nor to sit down, before she would fall to the ground insensible, and on three occasions she remained unconscious for an hour and a-quarter. I saw her in July, 1853. She was then slightly jaundiced; the tongue foul; the pulse feeble; the evacuations pale, sometimes nearly white; the urine pale and clear. I prescribed a course of saline aperients, with an occasional dose of pil. hydrarg. and pil. rhei comp. Under this treatment she became much worse, especially as to the dizziness and faintings. She consequently again came to town in September, 1853, with a friend, from whose description I found that the faintness and other nervous symptoms, which I had supposed arose from bile, were epileptic; The urine was then examined, and was found to contain an inordinate quantity of the chloride of sodium, (which, in the specimen analyzed, may have been partly derived from the soda given in her medicine,) and less than a normal amount of urea, and there was a considerable quantity of the phosphates; specific gravity 1·020.

I prescribed the nitro-muriatic acid internally, and a dose of the compound rhubarb pill every other night. This plan was persisted in for six weeks; at the expiration of that time she appeared to have been restored to the same state as she was in before I first saw her. I then advised the acid sponging twice a day, and the drinking of strong lemonade, with a glass of sherry in it, both for luncheon and dinner, in addition to the internal use of the nitro-muriatic acid. The effect of this treatment was immediate and striking. She soon perceived a manifest improvement in her general feelings, as if more nervous vigour had been given her. The attacks of dizziness were evidently lessened. At the expiration of two months, she wrote me, that the dizziness had subsided altogether, and that she had not had a fit since she commenced the sponging. She further wrote, that she could not describe the improved state of her nerves better than by saying she had more the feelings of health than she had experienced for several years. She continued to use the acids for several months without interruption, and up to this time, February 1856, she has remained perfectly well, although she has been exposed to severe affliction since her recovery.

(To be continued.)

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING JANUARY.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

Number of cases, 5; recovered, 3; under treatment, 1; died, 1.

Case 1.—A boy, aged 4, in poor health, under Mr. Cock's

care, in Guy's. A small lithic-acid stone was removed. Subsequently, an attack of diarrhœa reduced him very low, but, by the use of opium internally and by injection, it was restrained. Recovered. *Case* 2.—A child, aged 3, under Mr. Erichsen's care, in University College. A large lithic-acid stone, coated with phosphates, was removed. The child had a severe attack of pneumonia afterwards, but is now recovering. *Case* 3.—A boy, aged 5, under Mr. Fergusson's care, in King's College. A small oval calculus was removed. Recovered. *Case* 4.—A man, aged 50, in fair health, under the care of Mr. Fergusson, in King's College. A large lithic-acid stone was removed. Secondary hæmorrhage occurred on the eleventh day after the operation. Recovered. *Case* 5.—A thin, delicate lad, aged 10, under Mr. Solly's care, in St. Thomas's. He had suffered severely from symptoms of stone for three months. The urine was albuminous. A stone weighing nearly two drachms, and having a lithic-acid nucleus and a shell of triple phosphate, was removed. The boy did well until the sixth day afterwards, when symptoms of kidney irritation came on. Death occurred on the eleventh day. The autopsy showed the bladder small and hypertrophied, the ureters dilated, the left kidney small, and its cortical structure almost destroyed by old disease; the right kidney hypertrophied, but its secreting part interfered with by deposit. In both kidneys were numerous calcareous deposits.

HERNIOTOMY.

Number of cases, 9; recovered, 3; died, 6.

Case 1.—A woman, aged 66, under Mr. Critchett's care in the London Hospital. Hernia femoral, strangulated 48 hours, but for many years irreducible. The taxis had been greatly abused prior to admission. The vomiting was stercoraceous, and the general symptoms severe. The operation was performed by Mr. Corner, (House-Surgeon.) Sac not opened. Opiate treatment. Recovery without bad symptoms. *Case* 2.—A woman, aged 32, in good health, under the care of Mr. Tatum, in St. George's. Hernia femoral, and strangulated 24 hours. The sac was opened, and found to contain bloody serum and some much-congested intestine. A severe attack of peritonitis followed, but she ultimately recovered well. This patient had been operated on in the Hospital for the same hernia a year ago. *Case* 3.—A woman, aged 48, under the care of Mr. Stanley, in St. Bartholomew's. Hernia femoral, strangulated 48 hours. Sac not opened. Recovered. *Case* 4.—A woman, aged 33, in good health, under the care of Mr. Cutler, in St. George's. Hernia femoral, strangulated four days. The sac was opened, and found to contain a knuckle of very dark intestine, and some bloody serum. Death from acute peritonitis followed on the third day. *Case* 5.—A woman, aged 57, under the care of Mr. Stanley, in St. Bartholomew's. She had for long been the subject of hernia, but had been unable to wear a truss. Symptoms of strangulation, vomiting, etc., had commenced three days before admission. The tumour was large and tense, but at the time of operation the patient's appearance was good; pulse 80, and of fair volume. The sac was opened, and found to contain omentum, a large portion of which was cut away. After the operation, the part of omentum left in the wound sloughed. No symptoms whatever of peritonitis followed, but death from bronchitis occurred on the fourteenth day. *Case* 6.—A man, aged 86, under the care of Mr. Walton, in St. Mary's, on account of a large inguinal hernia, of old standing. It had been down six days, but there had been slight action of the bowels three days ago. The vomited matters were stercoraceous, but the constitutional disturbance was not severe. On account of a very intermittent and feeble pulse, no chloroform was given. The sac was opened, and found to contain a portion of much-congested ileum, and a large quantity of fluid. The bowel was adherent to the much-thickened sac. The patient never rallied, and death took place about 64 hours after the operation. *Case* 7.—A woman, aged 40, under the care of Mr. Erichsen, in University College. Hernia femoral, of small size. The patient stated that it had been down for a week, but that, up to the preceding day, the bowels had been relaxed. It appeared, however, that the motions, although loose, had been scanty, and had contained blood. She was quite certain that during the whole week no flatus had passed. The hernia was tense; the abdomen full, tympanitic, and tender. At the time of the operation she was much sunken, and was in addition to peritonitis suffering from capillary bronchitis. The hernial sac was not opened. Death took place eighteen hours after the operation. The autopsy showed general inflammation of the peritonæum, with adhesions, and effusion of much turbid fluid. *Case* 8.—A woman, aged 65, under the care of Mr. Callaway, in Guy's. Hernia umbilical, the size of two fists, and strangulated seven days. The skin over the tumour was congested, and of a reddish brown, pitting on pressure. The abdomen below the umbilicus was collapsed and flaccid. The patient had a fair pulse, but the general surface was tending to cold. The sac having been opened, a mass of omentum and some coils of bowel were exposed. The latter were of dark port-wine hue, and had ash-coloured spots upon them. The sac contained pus. The stricture having been divided, gentle attempts at replacement were made, and under these the bowel gave way, and some fluid fæculent matter escaped. The edges of the torn gut were stitched to that of the wound, and the whole left *in situ*. The symptoms of strangulation continued unabated, and death took place twenty-four hours afterwards. The autopsy showed that the tract of bowel strangulated was of the ileum, about three feet above the cœcum. *Case* 9.—A woman, aged 81, under Mr. Callaway's care, in Guy's. Hernia oblique inguinal, of considerable size, strangulated 48 hours. (The account given by the old woman of her symptoms was very confused, and the duration of strangulation had very likely been more than that stated.) The sac was opened, and found to contain about four inches of the lower portion of the ileum, and a considerable mass of omentum, all of which were adherent by recently effused lymph. In attempting to replace the portion of gut which was in view the finger encountered another knuckle closely adherent to the neck of the sac, which gave way under the pressure. The edge of the ruptured part was united by a suture to the external wound, and the stricture having been freely divided the parts were left *in situ*. Death followed 41 hours after the operation. The autopsy showed an opening in the bowel not larger than would have admitted a quill. The intestine was still very greatly congested.

LIGATURE OF ARTERIES.

Case 1.—A man, aged 60, under the care of Mr. Hutchinson, at the Metropolitan Free, on account of primary cancer of the sub-maxillary lymphatic glands on the left side. The disease had existed one year. The upper half of the sterno-mastoid muscle had been entirely involved in the growth. Ulceration had at length occurred, and opened an enormous cavity, which would easily have contained a fist, and which in parts had only the mucous membrane between it and the cavity of the pharynx. Arterial hæmorrhage (which had been long expected, as the ulcer extended from the chin to the ear, across the course of the vessels) at length occurred to a most profuse extent. The man fainted, and having remained insensible for some time, the bleeding was arrested, a large coagulum occupying the ulcer. The fear of sudden death, from a recurrence of hæmorrhage, induced the patient and his friends very willingly to consent to the proposal to ligature the carotid. This was accordingly done, at a spot a little below where the omo-hyoid crosses its trunk. No difficulty attended its performance; the vessel, where tied, was of large size, and appeared quite healthy. No bleeding whatever occurred after the operation, and the wound made, excepting by the side of the ligature, healed almost entirely by first intention. The pain of the cancer was very much diminished, and for several days it almost ceased to discharge. Ever after the operation the man remained slightly deaf, and his right arm was tremulous. There was, however, no paralysis; and up to the day preceding death he could grasp most firmly with the hand. His intellect remained undisturbed; he slept well; and, until the day preceding death, took his usual food, and always seemed cheerful. There had been no pain whatever in the head. On the evening of the seventh day he seemed unusually well, but he had not taken much food during the day. About ten at night he got restless, and asked to be allowed to get up, which was foolishly permitted by his attendants. While standing in the erect position it was noticed that his right leg was dragged, and soon afterwards his right arm became powerless. Having been removed to bed, he gradually sank, and died in a few hours. Looking at the circumstance, that there had been deafness ever since the operation, and increasing tremulousness of the right arm, Mr. Hutchinson was inclined to believe that some softening had taken place in the brain, as a consequence of the opera-

tion, and that the immediate cause of death was the giving way of the collection of fluid. The friends refused to permit an autopsy.

Case 2.—A lad, aged 17, admitted into St. Thomas's, having been wounded in the front of the ancle by a chisel. A vertical wound, nearly an inch long, was found in the anterior tibial artery. Ligature of the vessel, above and below that part, was immediately performed by Mr. Fernie (H.S.), and the case did well.

Case 3. — A young man, under care in University College, on account of wound of the ulnar artery. Mr. Maudsley (H.S.) tied the ends of the vessel, and the wound healed well.

AMPUTATIONS.

Number of cases, 19; recovered, 6; under treatment, 7; died, 6.

Double Amputation (Pirogoff's.)—*Case* 1.—A Malay, aged 21, of desponding mind and feeble constitutional power, under the care of Mr. Busk, in the Dreadnought, on account of gangrene of both feet after frost-bite. Both feet were removed on the same day by M. Pirogoff's method. The subsequent progress has been fair; there has been profuse suppuration about the tendons, but healing is now fast being accomplished. There is as yet no union between the bones. Very large quantities of stimulants and of opium have been needed.

Of the Thigh.—*Case* 2.—A girl, aged 20, under the care of Mr. Birkett, in Guy's, on account of a rapidly-growing recurrent fibroid tumour, just below the knee. Two operations for its removal had been performed, (see Reports for September, and October last,) and after each it had returned. The first was a complete excision; in the second, it was not found practicable to get away the whole. Amputation through the thigh. Recovery. *Case* 3.—A boy, aged 6, in good health, under the care of Mr. Adams, in the London, on account of crushed leg. Primary amputation by the circular method in the lower part of the thigh. The boy has recovered well, but the end of the femur protrudes, and will have to exfoliate. *Case* 4.—A boy, aged 10, under Mr. Erichsen's care, in University College, on account of diseased knee-joint after injury. Amputation. Doing well. *Case* 5.—A woman, aged 26, under Mr. Erichsen's care, in University College, on account of diseased knee-joint after parturition. The patient was very feeble at the time of the amputation, but has done well ever since. *Case* 6.—A stout, muscular man, aged 23, admitted into St. Bartholomew's, under the care of Mr. Paget, a charge of small shot having been lodged in his left knee joint. The patella and condyles of the femur were comminuted, but the vessels were uninjured. Primary amputation within two hours of the accident was performed. Doing well. *Case* 7.—A woman, aged 53, under the care of Mr. Hilton, in Guy's, on account of disorganization of the knee-joint and diseased tibia. She was in tolerable health. Twenty-five years ago she had been under Mr. Key's care with hydrops articuli, for which puncture with a trocar was practised. Anchylosis followed, and for twenty years the limb was a very useful one. The second attack of inflammation was caused by a kick over the part. For some time after the amputation, she was in a very feeble condition, but the stump is now all but healed, and she may be said to be out of danger. *Case* 8.—A man, aged 24, under Mr. Erichsen's care in University College, on account of diseased knee-joint of three years' duration. He was extremely feeble at the time of the operation and sank subsequently. *Case* 9.—An emaciated cachectic man, aged 26, was admitted into St. Thomas's under the care of Mr. South, on account of diseased knee-joint, of three weeks' duration. Two months before he had received a punctured wound of the right thumb, which was followed by abscesses in the right side and arm, and subsequently by abscess in the knee-joint. The suppuration from the latter was rapidly exhausting him, and, notwithstanding his extreme debility, it was decided to amputate. For the first ten days afterwards the stump was sloughy and inclined to bleed; subsequently, however, it nearly healed. Some small sores on the back, which were present at the time of admission, increased rapidly after the amputation. Death took place one month after the operation. The autopsy showed no visceral disease. There were numerous large sinuses in the back, leading into large collections of matter. *Case* 10.—A little girl, aged 7, under care in the London, on account of acute periostitis of the tibia. She was rapidly sinking under the profuse discharge, when it was decided to amputate the limb. Death followed on the eighth day, there not having been any complete rallying after the operation. *Case* 11.—A man aged 24, admitted in a Physician's ward, in St. Thomas's, for what was believed to be rheumatism. About ten days afterwards, an abscess in the left forearm required to be opened, and subsequently healed. A large abscess then formed in the left thigh, and most profuse discharge followed. Six weeks after admission, amputation was performed by Mr. Simon. At this time he appeared to be fast sinking under the profuse suppuration, there had also been diarrhœa, and some symptoms threatening of chest mischief. For the twenty-four hours immediately following the amputation, he was in good condition, but afterwards rapidly sank.

Of the Leg.—*Case* 12.—A lad, aged 12, under Mr. Stanley's care in St. Bartholomew's, on account of disease of the tarsus, consequent on a crush three years before. Flap amputation in the lower third of the leg. Recovered. *Case* 13.—A man, under the care of Mr. Birkett, in Guy's, on account of non-union after a severe compound fracture of the leg. The operation of excising the ends of the bones was practised three months before, but it was not followed by any success. Amputation. Recovery. *Case* 14.—A man, aged 27, under Mr. Stanley's care in St. Bartholomew's, on account of diseased ancle, of fifteen months' duration. He had been several months in the Hospital prior to the amputation, and had suffered from a low form of pneumonia. After recovery from the latter, amputation in the lower third of the leg was performed. He has not done well since, and seems to be gradually sinking. *Case* 15.—A man, aged 26, under Mr. Critchett's care, in the London, on account of a crush of the foot and leg in a railway accident. Primary amputation below the knee. On the second day phlegmonous erysipelas attacked the stump, sloughing afterwards followed, and death occurred on the fourteenth day.

Of the Foot.—*Case* 16.—A man, aged 29, admitted under the care of Mr. Luke, into the London, on account of lacerated foot. Primary amputation across the metatarsal bones. A severe attack of erysipelas followed, but the stump is now doing well. *Case* 17.—A lad, aged 19, under the care of Mr. Stanley, in St. Bartholomew's, on account of strumous disease of the tarsus. The operation was commenced in the hope of being able to remove the diseased bones without amputating, but the disease was found so far advanced that a Chopart's amputation was necessary. Doing well. *Case* 18.—A man, aged 40, under Mr. Fergusson's care, in King's College, on account of diseased metatarsal bones. The disease was consequent on an injury, followed by mortification, seven months ago. Chopart's amputation was performed. Recovered.

Of the Upper Extremity.—*Case* 19.—A man, aged 58, under the care of Mr. Birkett, in Guy's, on account of compound and comminuted fracture of both bones of the forearm. Sloughing ensued on the attempt to save the arm, and secondary amputation was requisite. Death from pyæmia.

EXCISION OF JOINTS.

A man, aged 52, under Mr. Quain's care in University College, on account of diseased elbow-joint, the consequence of a compound fracture four months before. The articular ends of the humerus and radius were removed, and also a considerable portion of the ulna. Doing well.

EXCISION OF THE BREAST.

Case 1.—A florid woman, aged 51, under the care of Mr. Erichsen in University College, on account of scirrhus of the breast of one year's duration. The whole breast was removed. Doing well. *Case* 2.—A woman, aged 46, under Mr. Marshall's care, in University College, on account of scirrhus of the breast of two years' duration. Excision. Doing well. *Case* 3.—A woman in good health, and of middle age, under the care of Mr. Hawkins, in St. George's, on account of scirrhus of the breast. Excision. Recovery. *Case* 4.—A woman, under Mr. Birkett's care, in Guy's, on account of returned cancer of the breast. Excision. Recovery. *Case* 5.—A woman, aged 45, thin, pale, and cachectic, under the care of Mr. Hutchinson, in the Metropolitan Free. In the lower part of the right breast was a mass of scirrhus, the size of a hen's egg. She was quite certain it had existed only ten weeks, having discovered it when the size of a pea. Several of the axillary glands were enlarged, and of stone-like hardness. The lower

half of the breast, and eight of the axillary glands, were removed. Recovered.

EXCISION OF NON-MALIGNANT TUMOURS.

Case 1.—A healthy boy, aged 12, was admitted, under the care of Mr. Stanley, into St. Bartholomew's, on account of a tumour, developed, apparently, in the triceps muscle of the left arm. It was about the size of half an orange, having existed three years, but having rapidly increased latterly. An incision was made down its centre, and its base afterwards included in two ligatures. Very profuse bleeding occurred during the operation. A week later its base beneath the ligature was noticed to be enlarging, and to have acquired pulsation. Subsequently a free excision of the whole, including part of the triceps, was practised. The section of the tumour after removal was pale, and resembled that known as "albumino-sarcoma." A white boundary line marked its separation from the muscle in which it was imbedded. The wound is healing favourably. *Case* 2.—A woman, aged 48, under the care of Mr. Birkett, in Guy's, on account of eight large encysted tumours on the head and neck. Some of them were in the ordinary condition, but one was quite solid, had ulcerated, and presented a fungating sore exactly resembling a cancer. (The "Peculiar form of follicular disease" first described by Mr. Cock.) It was as large as a small orange. All the wounds quickly healed. *Cases* 3, 4, 5, 6, and 7.—Fatty and encysted tumours, none of them of unusual size. In all, the patients have recovered well.

TRACHEOTOMY.

A man aged 30, under care in a Physician's ward in Guy's, on account of obstructive disease about the larynx. His dyspnœa gradually increased, until, under the most urgent circumstances, it was necessary to perform tracheotomy. The operation was done by Mr. Callaway. Immediate and great relief followed it; but on the third day the man sank from bronchitis. At the autopsy, in looking downwards into the larynx, the rima glottidis was seen to be completely occluded by tumefaction. On cutting it across, this was found to be caused by an abscess capable of holding half a walnut, in the posterior part of the larynx. In the matter contained in it one of the arytænoid cartilages lay quite detached. There were evidences of inflammation of the trachea and bronchial tubes, and in the mucous membrane of the latter were numerous very small abrasions or follicular ulcers. The man had an eruption about his skin, which was thought by some to be syphilitic, but there was no ulcerative disease whatever about the larynx.

REMOVAL OF NECROSED BONE.

In seven cases operations for the removal of dead bone have been successfully performed. All the patients are doing well.

OPERATIONS FOR STRICTURE OF THE URETHRA.

Case 1.—A man, under the care of Mr. Lane, in St. Mary's. A stricture of great density, situated two or three inches from the meatus, was divided by means of a straight lanceted stiletto. Doing well. *Case* 2.—A man, aged 26, under the care of Mr. Fergusson, in King's College, having suffered from stricture for four years. No instrument had been introduced for six months. Mr. Fergusson was unable to pass a staff even of the smallest size, and accordingly operated without. The stricture was freely divided, and a No. 9 catheter was left in the bladder. Doing well. *Case* 3.—A man, aged 48, under Mr. Henry Thompson's care, in the Marylebone, the subject of old stricture. After some trouble, dilatation up to No. 3 was achieved, but the passage of the instrument was always followed by severe rigors. Perinæal section of a No. 2 grooved sound was performed on January 8, and a No. 10 catheter was afterwards retained for forty-eight hours. Not a single bad symptom followed. On the 29th the wound was all but healed, and No. 12 was easily admitted.

PUNCTURE OF THE BLADDER.

The case of puncture of the bladder, under the care of Mr. Thompson, in the Marylebone, mentioned two months ago, has ended in death. The state of the urinary organs had been greatly benefited by the operation, and the cause of death was a protracted dysentery.

Case 1.—A lad, aged 16, was admitted under Mr. Tudor's care, in the Dreadnought, having, thirty-six hours before, fallen, and struck his perinæum on the edge of a door. Retention of urine had been complete ever since, and an attempt at catheterism made by a Medical man had procured only blood. It was evident that the urethra was lacerated, as the end of the catheter escaped from it when introduced, passing on one or the other side of the prostate. Perinæal section was performed, but the proximal end of the urethra could not be found. Under these circumstances, the bladder was at once punctured by the rectum, and about two pints of urine evacuated. The patient has since done well, and an elastic catheter is now retained in the urethra.

REMOVAL OF THE TESTIS.

A child, aged 2 years and 9 months, was admitted, under Mr. Athol Johnson's care, into the Hospital for Sick Children. Enlargement of one testis had been noticed almost from birth, and it had now increased till it measured about 7 inches in circumference. It was removed, and found to be an example of cystic disease. The child recovered well. (For description of the specimen, see report of the Pathological Society for February 5.)

OPERATIONS FOR NÆVUS.

In two cases, under the care of Mr. Athol Johnson, at the Hospital for Sick Children; and in one, under that of Mr. Hutchinson, at the Metropolitan Free, operations for nævus on young children have been performed. In two, the practice of ligature with needles, and in one, the injection of the perchloride of iron, was practised. All were successful.

PLASTIC OPERATION.

A woman, aged 36, under Mr. Henry Thompson's care, in the Marylebone, on account of an ulcer in the leg the size of a crown piece. It had resisted ordinary means of treatment, and the plan of covering it by a flap of skin dissected from the adjacent part of the leg was tried. The flap was attached by a broad pedicle, and but little twisting was sufficient to secure adaptation. The whole of the flap sloughed away. A large but healthily granulating sore now remains.

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Medical Times & Gazette.

SATURDAY, MARCH 1.

A PASSIONATE BOARD OF GUARDIANS.

Poor-Law practice is not a very enviable thing at the best of times. Hard work and small pay are its constant features. But these are trifles compared with the petty annoyances, the bickerings, the disputed accounts, and the quarrels about technicalities which Boards of Guardians may bring upon the head of their Medical Officer if they happen to dislike him. The following little history may serve as an example. We take it from the *Birmingham Daily Mercury* of February 22, and from authenticated documents which have been sent to us.

Dr. Henry Walker is one of the Medical officers of the Stourbridge Union, and is at war with the Board of Guar-

dians. The Board dispute his Michaelmas account, and out of £61 14s. 6d. object to pay £37 for Surgical operations and Midwifery, on the plea that the cases in question had not been brought under their notice at the proper time and in the proper manner. They further allege, that the "want of harmony" between Dr. Walker and his employers was a means of increasing the expenditure of the Union. Besides, Dr. Walker had allowed his Assistant to give a certificate regarding the nature of some patient's illness; and, lastly, it was proved that Dr. Walker actually did, on some occasions duly specified, contrary to law and custom, "use black ink when he ought to have used red"!

These offences of Dr. Walker, and the squabbles which ensued, were the occasion of a "voluminous correspondence" with the Poor Law Board, and a visitation by Mr. Graves, a Poor Law Inspector. The result of the investigation instituted by the authorities seems to have been, that Dr. Walker's claim for payment was just and regular; and as to other matters, his reply was in the nature of *tu quoque*. The Guardians were convicted, not only of irregularity in their own proceedings, but of partiality towards some of their Medical Officers. For example, a resolution of the Board is communicated to Dr. Walker, with the driest and coldest formality: to the three Medical Officers, it is wrapped in a very polite note. The certificate of Dr. Walker's Assistant is refused in a most insulting manner, in a case in which such certificate of a matter of fact was amply sufficient; while on the certificate of another Surgeon's *pupil*, a patient was removed to the workhouse in a state of extreme illness, and did not long survive his removal.

Such were the contemptible materials for a seven hours' investigation, during which Mr. Graves, the Poor Law Inspector, seems to have acted with the most perfect impartiality and justice, and to have recommended conciliatory measures on both sides. We may notice with great satisfaction the fact, that there is a central authority capable of protecting Medical Officers who do their duty from the paltry spitefulness of their local employers.

The result of the learned gentleman's recommendations was ludicrous enough in more respects than one. The Guardians, thoroughly beaten by Dr. Walker, seem to have acted rather like spoiled and passionate children, than like reasonable men. Their clerk had admitted that he had been guilty of certain irregularities; notwithstanding which, in the teeth of the man's own confession, they vote the charges made against him to be frivolous and vexatious! Whereupon the Poor-Law Inspector very significantly advises them to reconsider their resolution,—"As it would be well that no resolution should be passed by the Board wearing the semblance of having been moved under the influence of passion."

On the other hand, it was agreed that Dr. Walker should withdraw some disrespectful expressions which he had used towards the Board. Accordingly, he sent in a civil letter, withdrawing such expressions, on the 20th of February. On the 22nd, the Board, not heeding the advice of Mr. Graves to do nothing, as if under the dictates of passion, order their clerk, in a coarsely-worded resolution, to send back Dr. Walker's apologetic letter to the writer. The resolution to this effect was moved by a Clergyman!

Such, courteous reader, is an episode in the course of Union Practice! What that would be without, the control of the Poor-Law Board, we forbear to say.

THE INFLUENCE OF OCCUPATION ON MORTALITY.

The attempts hitherto made to determine the influence of professions on health are greatly reduced in value, in consequence of the inadequate data on which they are based. If Ramazzini and Thackrah could have known the facts of the last Census, the observations resulting from their scientific and benevolent labours would have had the authority of natural law. That Census sheds the light of statistical truth on the relation of professions and occupations to mortality, and brings out truths which no less extensive investigation would enable the most sagacious observer to anticipate.

It will be an incalculable advantage to obtain, by means of the next Census, a scientific deduction as to the effect of each kind of occupation on mortality. As the initial step has been taken, we may expect it will be followed by others in a path which, if beset with difficulties, cannot be traversed without leading to the most important and beneficial discoveries.

The last Census Report gave the number of persons in each occupation in 1851, and the Fourteenth Annual Report of the Registrar-General shows the numbers in those occupations dying at corresponding ages. In this early attempt to arrive at the ratio of occupation to the rate of mortality, it has been found that a difficulty arises from the want of definition of the various occupations, sufficiently clear and determined—a difficulty which can be overcome by giving more detail to future Census operations. It is, for example, found impossible to distinguish the rate of mortality among the different classes engaged in the manufacture of silk, of cotton, of linen, and of woollen, as great numbers of them are grouped together under the designation of "Weavers." "Miners," whether in lead, iron, copper, or coal mines, fall under one general designation; and "Labourers" in the field, or railways, in quarries, and on roads, are not distinguished from each other in the registers.

Still, there are certain occupations sufficiently defined to obviate all danger of their being confounded, and whose rate of mortality can now be recorded with certainty. We give these classes at the decennial period, ranging from 45 to 55 (a) as arranged in a Table (XVIII.) which shows the advancing rate of mortality in twelve occupations.

1. *Farmers.*—Of the twelve classes under consideration, Farmers are the longest livers, their rate of mortality being not quite 12 in 1000 (11·99). The number of English farmers of all ages in 1851, including 2429 graziers, was 225,747, of whom there were 53,608 between the age of 45 and 55. In that year, the total number of deaths among farmers of all ages was 6426, very much below the numbers which would have been registered had these individuals been engaged in other pursuits. These facts prove that the pure air, the daily exercise, the substantial fare, and the other aids to health enjoyed by this substantial class, considerably modify the influence of unfavourable weather, bad seasons, open ports, peculiar burdens on land, and all the other ruinous things which farmers' friends have been accustomed to depict in such gloomy colours.

2. *Shoemakers* hold the next place to farmers, their rate of mortality between 45 and 55 being 15·03 in 1000. They are followed by—

3. *Weavers*	15·37	in 1000.
4. *Grocers*	15·79	,,
5. *Blacksmiths*	16·51	,,
6. *Carpenters*	16·67	,,
7. *Tailors*	16·74	,,
8. *Labourers*	17·30	,,

As will be seen on inspection, there is among these seven occupations a gradual increase in the rate of mortality, which, considering their great diversity, is quite remarkable. The near approach of these occupations to each other in the scale of mortality, arises from the circumstance that they have

(a) The decade from 45 to 55 is the only age to which the Census Returns have been applied in the Fourteenth Annual Report of the Registrar-General. We shall have still more important results when these returns are applied to earlier ages.

peculiar dangers which tend to counterbalance each other. Thus it is to be noticed, that "the tailor is not exposed to the explosions which are fatal to the miner, and the labourer has exercise which is denied to the tailor."

Ascending this scale of danger we pass to—

9. *Miners*	20·15 in 1000.	
10. *Bakers*	21·21	,,
11. *Butchers*	23·10	,,
12. *Innkeepers*	28·34	,,

A great disparity is observable in passing from labourers into the class of miners, telling a tale of dangers, many of which result from criminal neglect. Between labourers and the last four classes in this table there is a most remarkable hiatus. In the classes previously noticed, the difference in no case is more than one in a thousand, and in some instances less. Here the difference begins with three, and mounts up to nine, in a thousand.

The returns show that the highest rates of mortality are found among the Butchers (23·10 in 1000), and the class of Innkeepers and licensed victuallers (28·34 in 1000).

The extraordinary mortality of butchers is a fact for which we are indebted wholly to the last Census. The "red-injected face" of the butcher, has produced a wrong idea as to the healthy nature of his occupation. This idea is now corrected by scientific induction, and proper sanatory means will overcome the evil thus brought to light. To quote the significant remarks in the report conveying this fact, here is an important problem for solution: "On what does the great mortality of the butcher depend? On his diet, into which too much animal food, and too little fruit and vegetables enter? on his drinking to excess? on his exposure to heat and cold? or, which is probably the most powerful cause, on the elements of decaying matter by which he is surrounded in his slaughter-house and its vicinity?"

If the rate of mortality among innkeepers, licensed victuallers, and beer-shop keepers should be seized with avidity by the advocates of teetotalism, they must not be forbidden its use; at the same time they must be reminded, that "many highly respectable men of this class lead regular lives, and are of steady habits; but others exposed by their business to unusual temptations, live intemperately and enjoy less quiet at night than the rest of the community. They are exposed also to zymotic diseases, by intercourse with large numbers of people."

Startling and painful as are these disclosures, they cannot be too widely published. They have a practical value among those who deal with the averages of life, for commercial or benevolent purposes; while, to those more specially concerned, they show the necessity, for their own safety, of employing the measures by which unnecessary disease and premature death may be obviated.

THE WEEK.

It will be recollected that we drew attention some months since to the state of St. Pancras Workhouse, in consequence of the public reports which were prevailing as to the Sanitary condition of that establishment. The Surgeon, Mr. Waldegrave, had represented to the Vestry the neglect and ill-treatment to which the sick paupers were subjected, and the only result was that the Vestry proceeded to "get rid" of him as soon as possible, and declared that the allegations as to the state of the sick wards were merely electioneering tricks, invented to produce a temporary excitement. We find, however, that the attention of the Government has at last been drawn to the subject, and in answer to a Member of Parliament, the President of the Poor-law Board has stated that the representations made by Mr. Waldegrave have been verified, and that a Medical gentleman of eminence (Dr. Bence Jones), appointed to inspect the Workhouse, has described the state of things as "horrible." The President had no objection to lay the Report on the table, and we present an abstract of it in our columns of this day. The Poor-law Board has directed that the Report should be communicated to the authorities of St. Pancras, and "strong hopes were entertained" that the latter parties would remedy the evils pointed out. It is now, therefore, fully established that the complaints made as to the condition of St. Pancras Workhouse were well founded; although the "authorities" constantly denied the truth of the allegations, and represented them as having been made for interested and factious motives. With a ludicrous inconsistency, the present Vestry of St. Pancras exhibit an extraordinary eagerness to admit the truth of Dr. Bence Jones's report, and throw the blame of the horrors of the Workhouse upon the former Vestry, although the principal speakers themselves belonged to the old Vestry, and, for anything we know to the contrary, may have assisted in persecuting Mr. Waldegrave, and in denouncing the "calumnies" of the press. In a powerful leader in the *Times* of Thursday, the Workhouse system of St. Pancras is exposed in all its naked atrocity, and a contrast is drawn between the lot of the pauper and that of the felon, much to the advantage of the latter. It will be recollected that we drew the same comparison several months ago, before the attention of Parliament had been directed to the subject, and that we unveiled the abominations of St. Pancras Workhouse before the subject became fashionable enough to attract the attention of our daily contemporary. We feel gratified at having led the way in drawing public attention to this subject, and at the success which has been achieved.

The verdict of temporary insanity, which is generally returned by juries in the cases of suicide, is one the absurdity of which has long been evident to those who take the trouble to think upon such subjects. What is the real force of the word temporary? Do the jury assume, that the alleged insanity, under the influence of which the suicide was committed, would have ceased shortly, if suicide had not been committed? This is the only legitimate meaning which can be given to the word; and yet what a rash and baseless assumption does it involve! It amounts, in fact, to this: a man must be mad to kill himself; but the suicide is the only evidence of insanity; and if there had been no suicide, there would have been no insanity! The assumption that suicide is *ipso facto* proof of insanity, is, however, as we need scarcely tell our readers, opposed to all experience, and to what we know of the constitution of human nature. The history of the great suicides of antiquity fully disproves it—both the noble and ignoble; Judas Iscariot and Ahithophel, as well as Cato the younger;—or death may be the result of a man's deliberate choice, as the least of two evils; some men think it better than disgrace, and will take the "dark leap," rather than face their fellow-creatures whom they have deluded and plundered. We are glad to see that in the case of Mr. Sadleir, the Coroner for Middlesex has required all the evidence possible as to the state of mind of the unfortunate gentleman; this is as it should be, for in all judicial inquiries the truth should be aimed at, be the cost what it may.

Now that the new Medical Reform Bill has passed its second reading, the Profession in general, and the Medical Corporations in particular, are beginning to inquire into its provisions, and to examine how far their interests are affected by its details. The College of Physicians of London are said to object to some parts of the measure, while the London College of Surgeons are opposed to it altogether; these two

Colleges are about to hold a conference to discuss its provisions, and to organize some joint plan of operations. The Scotch Colleges, which are undoubtedly greatly favoured by the new enactment, are also opposed to it, but on what grounds we have not yet learned; and the Irish Colleges are, we believe, entirely dissatisfied with the new scheme. The General Practitioners appear to be arousing from their apathy, and while some approve the Bill, and go so far as to sign petitions in its favour, others are afraid that too much power will be thrown into the hands of the old corporations, and that the progress of Medical education will be retarded, rather than advanced, by the proposed plan of a combined examination of Surgeons by the Colleges of Physicians and Surgeons. We have heard it rumoured, that attempts are being made to call a large meeting in London, to ascertain the sense of the Profession upon the Bill. If such a meeting should take place, it is hoped that Mr. Headlam will attend, and explicitly announce his intentions as to the ultimate fate of the measure; as it is feared that important compromises will be made during its progress through Committee, and that the principles for which the Profession have so long been contending may, possibly, be endangered, unless a vigilant eye be kept upon those who are urging the Bill through the Legislature.

The Mortality in Scotland, in 1855, amounted to 62,154,—the births to 93,498—giving an increase of population by births, of 31,344. This mortality is at the rate of 2·1 per cent., or 1 in 48 of the population; but this rate varies very considerably in the counties, the South-Western Counties having a mortality of 1 in every 41 of the population, while that of the Northern Counties is only 1 in 82; the latter containing a sparse population, and the former being thickly studded, and scarlatina and typhus having been very prevalent during the last quarter of the year.

The man named Corrigan, who was sentenced to death for the murder of his wife, and for whose execution preparations were made on Saturday last, has received a reprieve, almost at the last hour, from the Home Secretary. It was proved in evidence that the culprit committed the crime of which he was charged while he was under the influence of drink; but according to our law, this circumstance constitutes no palliation of his offence. We are no friends to the hangman, and would be glad if his functions could be dispensed with altogether, consistently with the safety of society; but we may be permitted to inquire the grounds on which this man has been reprieved. There are no less than ten cases of murder for trial at the next Session of the Central Criminal Court.

REVIEWS.

The Diseases of the Rectum. By Richard Quain, F.R.S., Professor of Clinical Surgery in University College, London; Surgeon to University College Hospital. Second Edition, with Additions. Walton and Maberly. London. 1855.

Though a second edition of this work has been called for in little more than a year from the time of its publication, we are glad to find that the present is not a mere reprint of the first edition; nay, every page gives proof of having been reconsidered. Several subjects are illustrated at greater length than before; some chapters, as for example that on cancer, are re-arranged, and in great part re-written. There is also a considerable addition of altogether new matter; thus we find chapters on villous tumours, on pruritus, and on concretions formed from animal substances taken as food, three subjects not treated of in the first edition. As in the original publication, the cases and observations are taken, not from the works of others, but from the author's own practice; such notice, however, is given of the opinions of previous writers as is necessary to the views set forth, and the clearest references to authorities are made, especially where Mr. Quain has felt called on to differ from the opinions they advocate. The work is essentially clinical: this is, indeed, its characteristic. The reader is taken as it were to the bedside of the patient—nay, when occasion requires, several patients, exemplifying various stages of the disease under consideration, are passed under review, and the opinions expressed regarding the nature of the disease and of the treatment, follow as inferences from the facts previously narrated in the histories of the cases. The cases themselves, too, are authenticated (a matter of no mean importance) by reference to the Hospital books in which they stand recorded: or, when drawn from private practice, by mention of the name of the Practitioner in conjunction with whom the patients were treated. The review we gave of the work when first published, renders any detailed analysis unnecessary; we shall notice, therefore, only a single subject, one of those now for the first time introduced into the work, and which we are disposed to consider the more fully, because the disease occurs but rarely, at the same time that the pathology of the morbid growth we refer to, may be considered still to be in an important respect undetermined.

Two cases of this disease have fallen under Mr. Quain's observation. In one of these cases the growth was seated in the rectum: "It is the only one," Mr. Quain says, "so far as I know, that has been removed in an operation. The disease occurred in a lady aged 68 years. It was of some years' duration; with every fæcal evacuation, a tumour protruded from the bowel. The descent of the tumour was attended with a discharge of slimy mucus and the loss of blood, often to a considerable amount; the patient had become much enfeebled, and her face and lips and tongue were blanched, doubtless on account of the long-continued losses of blood." The tumour was connected to the bowel nearly three inches from its orifice and towards its back part, by a pedicle about two inches broad. Mr. Quain removed the growth, "guarding against hæmorrhage with a ligature." Eighteen months after the operation, the lady was free from inconvenience of any kind in the bowel, as well as from any indication of the disease.

After removal, "the tumour was about five inches long by two in breadth. It was composed of elongated slender processes hanging loosely together upon a white fibrous tissue. The processes resembled villi, but on a colossal scale, and were a little enlarged at the ends—club-shaped." "The broad characteristic of the growth," continues Mr. Quain, "seemed to me to be, the being formed of elongated processes, villi, whence the distinctive name, the want of solidity or firmness, from the small amount of connective tissue; the extreme vascularity; and the slight restraint to the escape of blood, on account apparently of the coats of the vessels being extremely thin, and but slightly protected from without."

To growths such as this, Rokitansky has given the name Zottenkrebs, or villous cancer. Mr. Paget adopts Rokitansky's term, and describes their construction in an abstract of the German Pathologist's Essay. He does this because he has had no opportunity for many years past of minutely examining a well-marked specimen of the growth in question.

Mr. Quain has, we think, exercised a wise discretion in using the term villous tumour, rather than villous cancer. Neither in Mr. Quain's cases, nor in those detailed at considerable length by Gerlach, was there the slightest evidence of any other organ, than that the seat of the primary growth, being the seat of cancer or of villous growths. The constitution suffered because the patients were continually being drained of blood, but, so far as those watching them could see, from anæmic cachexia only; while in one of Mr. Quain's cases, when the growth was removed, the patient rapidly regained health; and in one of Gerlach's cases tubercles were found in the lungs, a fact tending to disprove the existence of cancer. All morbid growths are divisible into constitutionally innocent and constitutionally malignant. To the latter class belong encephaloid, scirrhus, and colloid cancer; these growths are certainly attended from the first, and probably invariably preceded, by a state of constitution which is necessarily fatal. The patient would die even though the growth should never ulcerate, though there should be no discharge and no hæmorrhage, and though the growth occupied a part, the maintenance of the healthy function of which was not essential to life, *e.g.* the breast. Constitutionally, innocent growths are not primarily attended by a condition of

the system inimical to life; but they may themselves tend to the death of the patient by interfering with functions essential to life,—by the injurious effects of the long-continued discharge consequent on their ulceration,—or by hæmorrhage. A constitutionally considered innocent growth, which must necessarily, from its situation, etc., lead to the death of the patient, is properly said to be locally malignant. A villous tumour of the bladder as certainly leads to the death of the patient as would a medullary cancerous growth in the same situation. But there is this difference between the two, viz.: while the medullary cancer owes its origin to a state of constitution necessarily fatal, independent altogether of the local disease, the villous tumour is not preceded or attended by any such constitutional cachexia—the constitutional suffering is the result, and only the result, of the injurious influences of the local disease; it ranks, in this respect, with certain ulcerated fibrous and epithelial growths from the uterus.

Having ourselves examined several villous tumours of the bladder, and two of the rectum, we may state that our experience fully confirms Mr. Quain's in regard to their non-cancerous nature. *A priori*, however, there is no reason for doubting the possibility of these vascular growths becoming, like other vascular parts of the body, the seat of cancer. Nor is there any evidence to show that patients, the subjects of villous growths, are in any way protected from cancer, as are those who are the subjects of the tubercular cachexia.

In conclusion, we may observe that we are acquainted with few works so practical, concise, clearly written, and distinguished by such sound sense as this. We cordially recommend it to the attention of our readers, and tender Mr. Quain our thanks for having given us so capital a guide in the treatment of a very troublesome and common class of diseases.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Edinburgh Correspondent.)

Edinburgh, February 16, 1856.

I have before directed attention to the efforts which have of late been made by several scientific men here to establish a

METEOROLOGICAL ASSOCIATION IN SCOTLAND,

one great object of which is to attempt to discover whether any or what connexion exists between atmospheric changes and the prevalence of particular diseases. A memorial was recently addressed by the promoters of the new Institution to the Board of Trade, for a share in the Parliamentary grant for promoting meteorological observations. It is to be regretted that the reply which was received yesterday is not satisfactory. The Lords of the Committee of the Privy Council, while appreciating the importance of the objects of the Association, regret that, owing to the vote of Parliament having been granted for promoting observations at sea, they are unable to grant pecuniary aid under the Act. The Association are now endeavouring to obtain some modification of the Act, in order to extend its benefits to observations made on land.

A letter has been addressed to Sir J. S. Forbes, the most active promoter of the Association, by Dr. Stark, who holds an appointment in the Scotch Registration Office, similar to that held by Dr. Farr in the English.

The letter is intended to show the influence of weather on health. Dr. Stark begins by lamenting the difficulty of providing accurate accounts of meteorological phenomena to compare with the mortality of a town or country. He first speaks of the effect of the occurrence of dense damp fogs, especially when preceded, as they often are, by a few days of close, warm, sultry weather, under which circumstances he believes them to be most pernicious to men, cattle, and crops. In proof of this, Dr. Stark instances the fact that, first on the 18th, and subsequently on the 27th of last November, after a very few days of mild, close, damp weather, with the mean temperature at 51 degrees, intense frost with a mean temperature of 25 degrees suddenly came on, attended with a dense, damp fog. "In both these instances," says Dr. Stark, "attacks of influenza among the population were so numerous, and the number of persons laid up was so great immediately on the occurrence of the dense fog, that it was impossible to overlook the connexion between the two. Dr. Stark further shows the influence of temperature on the general health and mortality. In 1855 the mean temperature of the Midland counties of Scotland was 36°, and 5977 deaths were registered. During February the mean temperature fell to 27°, and on several nights was as low as 4°. During that month the deaths increased to 7227. The succeeding months are then traced, to show that, as the temperature increased, the mortality diminished. While in the temperate regions of the globe a low temperature is the most pernicious, in the tropics the diseases and deaths increase with the heat, although this is modified by other atmospheric conditions, as, for example, large falls of rain.

Dr. Stark illustrates this by contrasting the Tennasserim coast with the adjoining peninsula of Hindostan; the latter being much more unhealthy than the former, from the absence of those purifying showers from which it reaps such benefit.

Dr. Stark further shows that influences much less appreciable than these appear to affect human life. Of these the pressure of the atmosphere, the presence of ozone, the quantity of hygrometric moisture, the direction of the wind, the quantity of telluric emanations are instanced. The general result produced by a perusal of Dr. Stark's letter would appear to be that, at present, we are sadly ignorant of the manner in which these causes jointly, or severally, act in producing disease; and that, if the observations of the Meteorological Society ever throw any light upon the subject, Medical science will be under deep obligations to it. I confess I am not very sanguine.

THE THOMSONIAN BEQUEST

again engages attention, a Committee of the Town Council having given in a lengthened report on their intromissions with the fund. We cannot say that the document is either very clear or very satisfactory, and as it contains little more than the verbal statement made some time ago by Baillie Brown Douglas, of which I gave you a summary at the time, I need not occupy your columns with it now.

MR. HEADLAM'S MEDICAL BILL.

The Medical Faculty of the University and the Royal College of Surgeons met to-day to consider Mr. Headlam's Bill. I have just learned that the former will attempt to modify some of the details of the measure, which is precisely similar in effect to the resolution at which the College of Surgeons arrived in agreeing to the report of the President's Council on the Bill, which consisted in multitudinous objections to its details.

I have not been able to obtain the decision at which the College of Physicians have arrived, although I understand that there has been more than one meeting on the subject.

GENERAL CORRESPONDENCE.

THE MEDICAL BILL: ARE ITS PROMOTERS TO BE TRUSTED?

[To the Editor of the Medical Times and Gazette.]

Sir,—You do well to warn the Profession of its present dangers. "It is," as you most truly say, "undesirable that the Bill [of Mr. Headlam] should be hurried through Parliament before its provisions are known, and its results calculated." It is notorious that, for various and opposing reasons, the majority of the rival Medical Corporations and Faculties dislike the Bill, and have many friends in the House of Commons enlisted to fight against it. It is also currently rumoured, that there are many provisions in the Bill which are to be dropped from it when in Committee, and which have only been introduced to swell the number of petitioners in its favour. The real character of the Bill, I and many others believe to be as yet a mystery known only to a select few. It is, therefore, premature to call upon us to support Mr. Headlam: the Bill may be so altered in Committee as to be a curse to the Profession. I impute no unworthy motives to any man or to any coterie; but I do hope you will, in the name of that large and influential section of the Profession by which a solid measure of Medical Reform is earnestly desired, call upon the Government or Mr. Headlam to state the ex-

tent to which they are prepared to modify the Bill. Surely as representing the interests of the public in so great a question as "Medical Reform," the President of the General Board of Health ought not to withhold his opinions; especially as it is very obvious that some of the machinery proposed by Mr. Headlam was arranged before we had in the Cabinet Council of the Queen, and in Parliament, a Minister of Public Health.

Again I ask, to what are the promoters of this Bill pledged?

I am, etc. SPECTATOR.

ANÆSTHESIA FROM COLD.

[To the Editor of the Medical Times and Gazette.]

SIR,—The discrepancy among your correspondents on the time during which congelation should be continued previously to operations, arises, I conceive, from a confusion between the means employed to cause congelation and the effect itself. As to the time required to stop the circulation and solidify the fat, that must depend upon the nature of the frigorific and the conducting power of the substance containing it, and is, probably, of no importance. I have seen ice and salt, in a state of rapid solution, freeze the skin immediately upon being placed upon it; whereas, if it be contained in a thick muslin bag or a bladder, ten minutes or more may be required, even when there is no inflammation.

The important point is the period during which congelation should be continued. The common practice is to make the incision immediately on its taking place; but if it is to exert an antiphlogistic power, I think a minute's duration or more would be required to secure this effect. The persisting redness which this continuance causes, is of no consequence.

February 23, 1856. I am, etc. CHIRURGUS.

SYME'S AMPUTATION AT THE ANKLE JOINT.

[To the Editor of the Medical Times and Gazette.]

SIR,—Having had some experience in the performance of Mr. Syme's operation on the ankle-joint, I beg to offer my testimony to the correctness of the principles recommended by Mr. Henry Thompson on this subject, as recorded in your last number. Within the last four years I have three times performed the operation in the manner described by Mr. Thompson, namely, by carrying the posterior incision, not directly downwards across the sole from malleolus to malleolus, but backwards and downwards over the extremity of the heel. This mode of proceeding was adopted in the first case at the kind suggestion of Mr. Wormald; the operation was so easily accomplished, and the result was in every way so very satisfactory, that I followed the same plan in two other cases. Sloughing of the flap, which is so common an occurrence when the operation is performed in the usual way, took place in one only of these cases, and in that to but a very small extent. It is quite necessary to remove the malleoli when the flap is made according to this method, and in all my cases the whole of the articular surfaces of the tibia and fibula were removed with the saw. Union by the first intention was effected to a great extent, and in neither case was I troubled by the retention of matter by the flap. I am, etc.

7, Manchester-square, A. G. FIELD.
February 23, 1856.

THE STUDY OF PATHOLOGY.

[To the Editor of the Medical Times and Gazette.]

SIR,—It will hardly be denied, that there is no branch of Medical science—next to Anatomy and its twin sister Physiology, which so imperatively claims the attention of the Professors of the healing art as Pathology; and yet, strange to say, when what were once only the *disjecta membra* of individual observation have been consolidated into a distinct and rapidly increasing body of facts and principles, the Members of the first Medical Examining Board in Great Britain continue to ignore it, or at least to shuffle it in at the head of an "awkward squad," of which "Celsus de re Medicâ" mildly and becomingly brings up the rear! While "taking tithe" of Forensic Medicine, Botany, and such minor subjects, they have "omitted the weightier matters" of Medical knowledge, and are, therefore, helping to suppress the growth of a science which cannot but be considered as the corner-stone of the Temple of Æsculapius. It does not require any profound experience of student life, to learn that what does not "pay" at examinations, men will take but little trouble—or rather none at all—to acquire; and while the dissecting-room is crowded by the votaries of Anatomy, the Pathological theatre is abandoned to the few who are determined to leave no stone unturned to gain a competent knowledge of their profession. At a time when the splendid works of Rokitansky, Hasse, and the continental Pathologists, are placed within the reach of every one; and when Drs. Jones and Sieveking have added to the list of manuals their valuable compendium of the existing state of the science, there can be no excuse for its omission from the second examination for the M.B. at the University of London, as a distinct and independent subject; and I do trust that the Senate, or Board of Examiners, only require the subject to be brought under their notice to make a speedy and satisfactory recognition of its importance.

February 18, 1856. I am, etc. F. T. B., B.A.

THE M.B. QUALIFICATION.

[To the Editor of the Medical Times and Gazette.]

SIR,—In this day's number of your Journal, "A Graduate of the University of London" writes as if it were the rule, instead of its being the occasional and temporary exception, for the M.B.s of the University of Cambridge to assume the title of Doctor, and to pass themselves off as M.D.s.

A Cambridge M.B. has no right to practise anywhere as such. A certain space of time (five years) must elapse before he can be created an M.D. If he desires to practise before that time, he obtains from the University (after a special examination for that purpose) the *Licentia ad practicandum in Medicina*; and with this he takes by courtesy the title of Doctor, until he is of sufficient standing to become M.D.

I do not suppose that half-a-dozen instances can be pointed out of M.B.s of Oxford or Cambridge practising as Physicians and calling themselves Doctors; whereas I am told that few of the M.B.s of the University of London have hitherto proceeded to the complete degree of M.D. They who so practise permanently as Physicians, practise under false signals: but I believe that the majority of them practise as Apothecaries: and the existence of this mongrel class is at once puzzling to the public and injurious to the whole Profession. I am, etc. CANTAB.

London, February 23, 1856.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 12, 1856.

CÆSAR HAWKINS, ESQ., President, in the Chair.

A paper was read on

CHEMICAL EXAMINATION OF THE EXCRETIONS IN A FATAL CASE OF OBSTRUCTION OF BOTH URETERS BY CALCULI.

By PROFESSOR MAYER, of Madras.

(Communicated by H. BENCE JONES, M.D., F.R.S.)

The paper, to which Professor Mayer's experiments formed an appendix, described at great length the case of a clergyman who died in India, having both ureters almost completely obstructed: death took place on the eighteenth day from the commencement of the symptoms, and during that period only 6 ounces, 2 drachms, and 12 minims of fluid, including pus and blood, were passed per urethram. The object of the experiments of Professor Mayer was to ascertain the presence or absence in the excretions of certain matters; more especially of urea, with a view to the formation of correct ideas as to the nature, severity, and progress of the disease. The results were, that pus in large quantity, albumen, and urea, were found to be present in the fluid passed per urethram. In the matters passed per anum, animal salts were present in excess; and the

author considered it a fair inference that a portion of these represented decomposed urea. The examination of the matters passed off by the lungs was not satisfactory for proof of more than the fact that, in this case at least, urea did not pass off in any appreciable quantity, in the form of ammoniacal salts from the lungs. In the perspiration, uric acid was distinctly found. The calculi were minutely examined and described as uric acid calculi, containing varying amounts of urates and phosphates. The right kidney contained one large calculus; the left, one large and four smaller ones.

Dr. Bence Jones said, he had brought the paper before the Society because he considered the experiments detailed in it perfectly trustworthy. He had never before seen a case of the kind in which the presence of uric acid in the perspiration had been positively established. The latest experiments had not detected its presence in healthy subjects.

The President asked Dr. Jones if he had ever examined the perspiration in cases of retention of urine, as from stricture. In such cases the smell of the skin was sometimes strongly urinary.

Dr. Jones had never made any satisfactory examination of the kind referred to; but he did not, however, consider that the urinous smell was due to uric acid, but to some more volatile substance.

Dr. Garrod said, it had been alleged that the white powder observable on the skin in gouty patients contained uric acid, but the statement had not been satisfactorily proved. In cases of chronic gout, in which the blood contained a large amount of uric acid in the form of urate of soda, he had been unable, after very careful experiments, to find a single trace of the acid in the perspiration. He considered that the experiments would require confirmation before it could be considered as established that the skin eliminated uric acid when the kidneys could not perform that duty.

Dr. Jones referred to the swelling in the psoas muscle alluded to by the author, and said he had observed similar appearances in a case of obstruction of the ureter; he found, on a post-mortem examination, that the swelling perceptible during life in the lumbar region was not due to a distension of the kidney, but to inflammation outside the kidneys, involving the psoas muscle, passing upwards to the diaphragm and down into the pelvis.

Dr. Snow said, he had observed the same appearance in two patients who had died of calculi in the kidney. He also mentioned a case in which he had detected ammonia in the breath of a patient suffering from congestion of the kidneys and albuminuria.

A paper was then read on

REPORTS OF CASES ILLUSTRATIVE OF THE PATHOLOGY OF THE EAR.

By JAMES HINTON, Esq., M.R.C.S.

(Communicated by Mr. STANLEY.)

The paper described the results of 56 dissections of the ear, made by the author. Of these 56 cases 12 were healthy. Of the remaining 44, which deviated more or less from health, 7 belonged to persons known to be deaf, 9 to persons who had shown no evidence of deafness during life. Of the 28 without histories, 15 presented considerable evidence of old-standing disease, and 13 were slightly affected. Nine cases of disease of the ear were related at length. Membranous adhesions in the tympanum were proved to be extremely common, being present in 29 out of the 56 dissections, one case occurring in a child of only four months old. The paper concluded with a statement of the morbid conditions found in the 44 diseased ears, arranged in a tabular form.

The President remarked, that the cases which had been detailed showed how easily the brain might be affected by disease of the ear.

Mr. Toynbee bore testimony to the great care with which the specimens had been prepared and the accuracy with which the cases had been described. He referred to the means of diagnosing the condition of the Eustachian tube by a careful examination of the surface of the membrana tympani, which in case of obstruction assumed a concave form. With regard to the membranous bands alluded to by the author, he was disposed to think that they were only post-mortem appearances.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

February 19, 1856.

Mr. Arnott, President, in the Chair.

Dr. Bristowe read for Mr. Adams and himself an elaborate report on a specimen exhibited to a former meeting by Mr. Borlase Childs, of

MYELOID TUMOUR IN THE FEMUR.

The report went to show that the tumour possessed, in addition to the fibro-cystic elements, a structure identical with that described by Mr. Paget under the name of Myeloid. In some parts the cells peculiar to the latter were very abundant, and of large size, and in others they appeared to have been broken down, in a process of fatty degeneration. Many of these cells had branching elongations, connecting them with other cells, and were of very irregular shape. No cartilage had been found in any part of the tumour, and the portions of bone which were separate from the surrounding shell were believed to have originally been detached therefrom. In the yellower and firmer parts of the mass numerous hæmatoid crystals were seen.

Mr. Hutchinson exhibited the parts involved in an

EXCISION OF THE KNEE-JOINT.

These had been taken from a case in which, in an excision of the joint, the femur had, on section, been found so much diseased as to necessitate amputation. The patient, a boy, aged 9, of delicate aspect, had been the subject of chronic disease of the right knee for four years. The first symptom had been aching pain, which slowly increased, and was after some months followed by swelling. For a year past the knee had been bent at an acute angle, with partial dislocation of the tibia outwards and backwards. Very little pain had ever been experienced, but there had been occasionally startings of the limb during sleep. Until within a month of the operation, no abscess had ever broke externally. When placed under Mr. Hutchinson's care, the history given was, that for the last six months the joint had been getting much worse, and that the boy's health was failing. The parents were then willing that the limb should be removed, a measure which, when recommended by another Surgeon a year ago, they had refused. Believing the case a suitable one, Mr. Hutchinson advised an excision of the joint. In the performance of that operation the following condition of parts was found:—The articular cartilages were removed in every part, and the opposed surfaces of bone, except where united by adhesions were in a state of caries. There was a deep ulcer, extending into the patella, the cavity of which would have contained a filbert. In the left side of the head of the tibia was a cavity, into which, for a depth of half-an-inch, the first joint of the finger entered easily. The condyles of the femur having been sawn away, two patches of yellowish material infiltrated into its cancellous tissue were seen, and also the cavity of an ill-circumscribed collection of pus. A second slice of the bone having been removed, a nearly similar condition of things was still found, a small abscess, lined by tough lymph, and capable of holding a small nut, having been opened. It was thus made evident that, unless by shortening the limb to an extent which would make it useless, it would be impracticable to cut away all the diseased bone, and amputation was accordingly decided on and performed.

Mr. Hutchinson remarked, that the pathological interest of the specimens consisted in their showing several distinct abscesses in the bone, and in the circumstance that the existence of these had not been rendered probable by the severe pain usual to such disease. With regard to the operation, he believed that, although it had not been deemed wise to persevere in the original intention, his patient had lost nothing whatever by the attempt made to save his limb. He had been, throughout its performance, in complete insensibility from chloroform, and within six hours afterwards was in as good a condition as he could possibly have been after amputation only.

Mr. Hutchinson also showed the parts removed in an

EXCISION OF THE ELBOW-JOINT.

The patient, a woman, aged 50, under his care in the Metropolitan Free Hospital, had suffered from diseased elbow for

one year. The history given was that of disease commencing in the synovial membrane. There had been stiffness and aching pain for some weeks before swelling commenced, and the latter had increased very gradually. At length abscesses formed, and the pain experienced became very severe, and of a gnawing character. The woman was very much emaciated, pale, and worn down by suffering. At the time of the operation, there was a single sinus at the back of the joint, which led into the articulation; great general swelling, both around the part and of the whole fore-arm. The ⊢ -shaped incision was adopted, and the extremities of the three bones sawn away. The cartilage was found ulcerated around its margin, on both ulna and humerus; an irregular patch, in the centre of the sigmoid cavity of the former, being also entirely removed, and the bone exposed. The head of the radius was sound. The whole synovial membrane was very much thickened, and the joint contained much softened lymph, with a small quantity of pus. The patient lost all pain after the operation; the swelling of the fore-arm subsided, and she was doing well in every respect.

Dr. Quain exhibited for Mr. Rae a specimen of

ANEURISM OF THE HEART.

The specimen shows an aneurism of the wall of the left ventricle, which appears as an open sac placed at the junction of the septum with the posterior wall of the left ventricle, and beneath one of the curtains of the mitral valve. The sac is about the size of a walnut, and it communicates through the septum with a sac the size of a nutmeg, situated in the wall of the right ventricle. This sac is situated immediately beneath the floor of the right auricle, and is superficial towards the surface of the right ventricle. On tracing it downwards the sac is seen to pass towards the apex of the right ventricle, with which it evidently communicated through and among the trabeculæ. The sac is evidently of long standing, for it is lined throughout by a thick, smooth, membrane, which has, in some parts, an almost ossific hardness. The aneurism had evidently commenced on the left ventricular surface of the septum, and gradually passing through it, formed in the wall of the right ventricle, where the septum and the posterior wall of the ventricle were in contact. Dr. Quain said he was indebted to Mr. Rae, of Greenwich Hospital, for the opportunity of bringing before the Society the specimen, which was taken from a Greenwich pensioner, aged 75, who, for some years, had suffered from bronchitis, from gout, and, for a few months before his admission into hospital, in August last, from œdema of the legs. When admitted he was suffering from cough, difficulty of breathing, irregularity of the heart's action, anasarca, and ascites. The dropsical symptoms had nearly disappeared, when he died suddenly, in an attack of dyspnœa, on February 14. The heart's action was observed to be feeble throughout his illness, and a loud bruit with the first sound was audible over the whole chest; but especially, and with nearly equal intensity, over the base and at the apex of the heart. The body after death was emaciated. The lungs were adherent at both sides. They were slightly emphysematous, and much congested at the posterior parts. The bronchi were tumefied and congested. The liver was fatty, and rounded at its edges. The spleen was smaller than usual; the capsule partially covered with a thick layer of hard fibrin. The kidneys were granular; the cortical substance of a light grey colour. The capsule was easily separable. In addition to the appearance of the heart already described, it was noticed that there were some three or four ounces of serum in the pericardial sac. There were several white patches on the surface of the heart. The whole organ, with the arch of the aorta, weighed thirty-one ounces. The aorta, as far as the termination of the transverse portion of the arch, was much dilated and calcified, so as to constitute a rigid tube. The aortic valves were incompetent; the mitral and tricuspid were tolerably healthy.

(To be Continued.)

Librarian to the British Museum.—Sir Henry Ellis has resigned his post in connexion with this Institution, and much excitement prevails as to the appointment of a successor, fears being entertained that the vacancy is to be filled by a foreigner, and one who has rendered himself somewhat obnoxious to the caterers in literature.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

January 10, 1856.

(Communicated by the Hon. Secretary.)

(Concluded from page 157.)

Dr. Blenkins (Grenadier Guards) then read two cases of scorbutic ulceration and sloughing. One, of a man who had been severely wounded in the trenches, on the thigh: the wound had nearly healed, when it began to ulcerate, followed by sloughing, and occasional copious hæmorrhages. Hospital gangrene was at the time prevailing in the French Ambulance, not far distant, and he suspected that it might be of that nature; he tried the usual remedies, and found them fail, until he combined the treatment with the free use of lime juice; the sore then rapidly healed, accompanied with corresponding improvement of health. The second case was that of a man who had been in the Hospital with bronchitis, when a pustule formed on his left elbow, followed by a second, both of which broke, and left small and deep cavities, which rapidly enlarged to the size of an inch in diameter; the same treatment was adopted as in the former case, and was followed by speedy recovery; both of these cases were accompanied with considerable swelling and ulceration of the gums, which first led him to alter the treatment, and pointed out the true nature of the disease; he mentioned his conviction that in many obstinate cases of disease or ulcers, the state of the gums should be examined with a view of arriving at the correct nature of the disease.

Dr. Williams then called on those who had been here last winter, to give their opinions and experience on the interesting paper of Dr. Blenkins.

Dr. Hall had met with scurvy at the Cape of Good Hope during both Kaffir wars, where there was no salt meat, and he thought it was not the salt meat that so often produced this disease, as the sameness of food; the necessity of vegetables was so apparent, as well as the impossibility of obtaining them in that place, that search was made through the natural productions of the country, and they discovered a description of spinach, which answered remarkably well, and also a species of succulent plant called spee-boom, similar in taste to sorrel, on which the elephants are fond of feeding, and it was employed with considerable success.

Dr. Blenkins, in reply to Dr. Hall, said, there was no great want of vegetables, as the men were enjoying Hospital diet. As the scorbutic tendency is slowly developed, the foundation of the disease was laid previously to their coming to the Hospital.

Dr. Hall mentioned seeing scurvy principally in men who had been long in Hospital under treatment for other diseases. He also stated that the lime juice has of late been very much and fraudulently adulterated; in some cases it was merely vinegar and water, and in some specimens lately examined there was scarcely a trace of acid.

Dr. Thornton had heard several Medical officers mention that the lime juice produced diarrhœa in many cases; this might be owing to the adulterations—but it had not that effect in his own experience; however, he might have been more fortunate as to the purity of the lime juice.

Dr. Blenkins, in reply to a question from Dr. Bowin (Coldstream Guards), as to whether he had noticed a tendency to tubercular disease in the scurvy patients, stated, that his examinations were specially directed to the intestines; in doing so he had examined the other organs, but not with such minuteness as to say it was altogether absent in all cases. He had found a general absence of tubercular disease in the Crimea. He did not believe that all the dysentery that we suffered from last year was scorbutic, as in some he had seen the same morbid characters that he had noticed in Irish recruits, derived from exposure to wet and cold on board ship, but he thought that scorbutic dysentery bore a very large proportion to the whole.

Dr. Wyatt mentioned the hardness of the sub-cellular tissues, and asked whether it was present in such cases in the legs when the bowels were also affected.

Dr. Blenkins considered that the disease manifesting itself in the bowels, was only an evidence that the disease was present. Swellings of the ham were often present, and fre-

quently coexistent with the diseased state of the bowels, but he could not state its frequency.

Dr. Wyatt, in corroboration of the constitutional taint of scurvy, mentioned the case of a young soldier who had shot himself through the hand, when, after being a short time in Hospital, the disease developed itself by affecting his bowels, and by complete failure of his health,—this man died shortly after in consequence of having lost both feet by frost-bite.

Dr. Barry, 13th Regiment, mentioned a case somewhat similar, that he had at present under treatment, and to which he would refer on a future occasion; he also asked whether purpural spots were present in all instances, and if it was considered necessary that they should be so.

Dr. Hall said, there was a very great variety in the symptoms, as sometimes there were only spots, at others only swelling and bleeding of the gums.

A conversation then ensued on the treatment, when lime juice and a nutritious diet appeared to obtain general approval. Chlorate of potass and the inspissated ox-gall had been recommended, but had not given satisfactory results. Dr. Hall mentioned that he was constantly receiving quack medicines, for almost every disease, and that chloroform had been tried at Varna for cholera, but had failed like almost all other remedies.

Dr. Thornton then exhibited a specimen of a partially reunited fracture of the tibia, caused by a gunshot wound, and read the case:—the man Private Michael Walsh, 9th Regiment, had been wounded in the trenches, on the 1st September, by a musket ball making a perforating wound through the calf of his right leg, apparently passing behind, but touching and fracturing the tibia; it was determined to save the limb if possible. On the 11th September, inflammation and tendency to suppurate having appeared on the front of the leg, about three inches below the course of the wound, an incision was made, and after a free discharge of pus, a longitudinal fracture was discovered; the bones being in close apposition, the limb was placed on a double-inclined plane; his general health attended to, he continued to improve, had no suffering, discharge ceased, wounds both from the gunshot and incision healed. On the 20th October, when the bones were united, the wounds reopened, and a rather profuse discharge took place; this continuing and the patient's health rapidly failing, he determined on operating, with the intention of removing any splinter or sequestra that might be still in the wound; or if the extent of injury was too extensive to expect a favourable effort at reproduction, considering the state of his health—to remove the limb. He was put under the influence of chloroform. On making an incision along the tibia it was found that the fracture had reunited, but that there was a canal passing in a longitudinal direction filled with spicula; it was therefore determined to amputate the limb, which was done by the flap operation a little below the tuberosity of the tibia; four ligatures were required; the stump healed by the first intention, and his general health rapidly improved.

On macerating the bone, it was found to have been more extensively fractured than was at first supposed, and that a fracture extended up the bone above the point of amputation, whether to the joint or not he could not state; it, however, appeared to have reunited, and as the stump had healed so well, it was to be hoped it did not so extend; the other fractures had been coated over with osseous deposits, but had not reunited.

Dr. Bowen proposed bringing forward some cases of frost-bite, with reference to gangrene, on the next meeting.

Dr. Barry proposed a mutual interchange of periodicals amongst the members, which was cordially approved.

The thanks of the meeting were then given to Dr. Blenkins for his paper, and to Dr. Hall for his coming and presiding at our meeting.

The Rugeley Poisonings.—It had been arranged that William Palmer should undergo an examination to-morrow before the magistrates, at the Stafford County Gaol, in order that he might hear the additional evidence which had been collected by Captain Hatton, the Chief Officer of the Staffordshire Constabulary, and Mr. Bodkin had been instructed by Government to go down and conduct the prosecution. An order was sent down on Friday, countermanding that arrangement, and it is now thought that the examination will not be proceeded with until the place of trial is definitely fixed.

MEDICAL REFORM.

A BILL TO ALTER AND AMEND THE LAWS REGULATING THE MEDICAL PROFESSION.

Whereas it is expedient to amend the laws relating to the Medical Profession: Be it therefore enacted by the Queen's Most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:

I. This Act may for all purposes be cited as "The Medical Act, 1856."

II. This Act shall commence and take effect from the 1st day of August, 1856.

III. From and after the commencement of this Act, the several Acts and parts of Acts set forth in the Schedule (A.) to this Act annexed, to the extent to which such Acts or parts of Acts are by such Schedule expressed to be repealed, shall be repealed, except as to the recovery and application of any penalty for any offence which shall have been committed before the commencement of this Act.

IV. A Council shall be established, which shall be styled "The Medical Council of the United Kingdom," and shall consist of one person chosen from time to time by each of the following Bodies:—The University of Oxford, the University of Cambridge, the University of London, the University of Edinburgh, the University of Glasgow, the University of Aberdeen, the University of St. Andrews, the University of Dublin, the Queen's University in Ireland, the College of Physicians of England, the College of Surgeons of England, the College of Physicians of Edinburgh, the College of Surgeons of Edinburgh, the Faculty of Glasgow, the College of Physicians of Ireland, the College of Surgeons of Ireland; and eight persons to be elected as hereinafter provided, and hereinafter called "the Representative Members."

V. Every person so chosen by the said several Universities, Colleges, and Faculty must be qualified to be registered under this Act; the first appointment by each of these Bodies shall be made within three months after the commencement of this Act.

VI. Every member of the Medical Council chosen by the said several Universities, Colleges, and Faculty, shall be entitled to hold office for three years, and shall then go out of office, but may forthwith be re-chosen.

VII. The Secretary of State for the Home Department shall, within three months after the commencement of this Act, appoint eight persons qualified to be registered under this Act to be the eight members of the first Medical Council not chosen by the said several Universities, Colleges, and Faculty, four of such persons to be appointed for England, two for Scotland, and two for Ireland; and the said eight members of the first Medical Council shall hold office till the 1st day of June, 1857, and shall then go out of office.

VIII. On the 1st, 2nd, and 3rd days of June, 1857, and on the 1st, 2nd, and 3rd days of June in every third succeeding year, the eight representative members of the Medical Council shall be elected in the manner hereinafter provided; four of such representative members to be elected by those persons whose names shall appear in the last Medical Register, to be published as hereinafter provided, as registered for England; 2 of such representative members to be elected by those persons whose names shall appear in like Medical Register as registered for Scotland; and 2 of such representative members to be elected by those persons whose names shall appear in the like Medical Register as registered for Ireland; and each of the said representative members shall remain in office for three years, and shall then go out of office, but may forthwith be re-elected.

IX. At any time not less than forty clear days next previous to the 1st day of every election of representative members of the Medical Council for England, Scotland, or Ireland respectively, any person entitled to vote at such election may give or transmit to the Medical Registrar to be appointed as hereinafter provided a paper, according to the form in Schedule (B.) No. 1, signed by not less than twenty persons entitled to vote at such election, containing the name of any person registered under this Act they may think fit to be elected as a representative member at the then ensuing election; and the Medical Registrar shall cause all such names so given or transmitted for England, Scotland, or Ireland respectively to be printed, together with the names of the two first persons

recommending the same, and shall also cause the names of the representative members for England, Scotland, or Ireland respectively then going out of office to be printed, in the respective voting papers to be used at the said election; and such persons so nominated shall be the only persons eligible to be elected representative members for England, Scotland, or Ireland respectively, on the day of election.

X. Every election of representative members shall be held at the office of the Medical Registrar, or at such other place as the Medical Council shall appoint; and the Medical Registrar shall give public notice of the time and place for the holding of such election by advertisement in two or more newspapers published in London, Edinburgh, and Dublin, ten days at least before such election.

XI. Every election of representative members shall be held before the Medical Registrar, and the voting at every such election shall commence at nine of the clock of the forenoon of the first day, and shall finally close at nine of the clock of the afternoon of the last day; and every person entitled to vote may in England vote for any number of persons not exceeding four, and may in Scotland and Ireland vote for any number of persons not exceeding two, by delivering to the Medical Registrar or his Deputy, or by sending through the post, the postage being prepaid, a voting paper, according to the form in Schedule (B.) No. 2, containing the names of the persons for whom he votes; and the Medical Registrar shall transmit by post to every person entitled to vote at such election, fourteen days at least before the first day of election, one voting paper as aforesaid; and no voting paper other than the one procured from the Medical Registrar, executed as therein directed, and delivered to the Medical Registrar or his Deputy, by the person voting, or transmitted by the post, as aforesaid, to the Medical Registrar or his Deputy, and received by the Medical Registrar or his Deputy on one of the days of election before nine of the clock of the afternoon, shall be counted a good and valid vote.

XII. The Medical Registrar shall after the close of the last polling day for every election of representative members proceed to examine the voting papers so delivered or transmitted as aforesaid, for the purpose of ascertaining which persons are elected; and the four persons to whom the greatest number of votes shall have been given by persons qualified to vote in England shall be the representative members elected for England, and the two persons to whom the greatest number of votes shall have been given by persons qualified to vote in Scotland shall be the representative members elected for Scotland, and the two persons to whom the greatest number of votes shall have been given by persons qualified to vote in Ireland shall be the representative members elected for Ireland; and in case of an equality in the number of votes for any two or more persons for England, Scotland, or Ireland respectively, at any such election, the Medical Registrar shall ballot out of the said number of persons having such equal number of votes so many as shall be necessary to complete the whole number of members to be elected, and such persons whose names shall have been drawn at such ballot, together with such persons as shall have had the greatest number of votes for England, Scotland, and Ireland respectively, shall be declared by the Medical Registrar to be duly elected the representative members for England, Scotland, and Ireland respectively, and the names of the persons so elected shall be published in two or more newspapers published in London, Edinburgh, and Dublin, not later than twenty-one days after such election.

XIII. The Medical Council shall, before the day of any election of representative members, appoint two members of the Medical Council, not being any of the representative members, who shall be present during the polling day, and during the examination of the voting papers and the ballot by the Medical Registrar, and who shall at the close of such election, certify that it has been fairly conducted according to the provisions of this Act, and sign the return made and to be published by the Medical Registrar.

XIV. No accidental omission either in sending the voting papers, or in any other respect, shall be held to invalidate any election of representative members.

XV. In the event of any one of the representative members dying or resigning, or becoming incapable to discharge his duties, during the term for which he holds office, the Medical Council shall appoint a fit and proper person being registered under this Act for England, Scotland, or Ireland, as the case may be, to fill the place of the representative member so dying, resigning, or becoming incapable to discharge his duties.

XVI. There shall be paid to the members of the Medical Council such fees for attendance and such reasonable travelling expenses as shall from time to time be allowed by the Medical Council, and be approved by the said Secretary of State.

XVII. The Medical Council shall hold their first meeting in such place and at such time as the said Secretary of State shall appoint, and shall elect one of their members to be their President, and shall hold their future Meetings in such places and at such times as they themselves shall appoint; and at every meeting in the absence of the President some other member to be chosen from the members then present shall act as President; and all acts of the Medical Council shall be decided by the votes of the majority of the members present at any meeting, the whole number not being less than Six; and at all such meetings the President for the time being shall in addition to his vote have a casting vote in case of an equality of votes.

XVIII. The Medical Council shall appoint a Treasurer and Secretary, and so many clerks and servants as shall be necessary for the purposes of this Act; and every person so appointed shall be removable at the pleasure of the Medical Council, and shall be paid such salary as the Medical Council shall think fit.

XIX. The Medical Council shall, within three months after their first meeting, appoint Examiners in London, Edinburgh, and Dublin respectively to examine in general education after a scheme to be approved by the Medical Council; and such Examiners shall receive such remuneration as the Medical Council shall think fit, and shall hold office for such period as the Medical Council shall determine; and no person, other than a Graduate in some University of the United Kingdom, or in some foreign university approved by the Medical Council, shall be entitled to present himself before any college, for the purpose of obtaining letters testimonial as hereinafter provided, unless he shall have received a certificate according to the form in the Schedule (F.) signed by some one or more of the said examiners, for which certificate the person receiving it shall pay a fee of £2; and all moneys received by the said examiners shall be paid to the treasurer of the Medical Council.

XX. The said Secretary of State shall, within one month after the passing of this Act, appoint a fit and proper person to be "the Medical Registrar," and shall also appoint such clerks and other officers as the said Secretary of State shall deem necessary for the assistance of the Medical Registrar; and the said Secretary of State shall, at his discretion, remove any of the persons so appointed, and upon any vacancy shall appoint another fit and proper person to be the Medical Registrar, or such clerk or officer; and the salaries of the Medical Registrar and of such clerks and officers shall be fixed from time to time by the said Secretary of State, and shall be paid, together with all reasonable expenses incurred by the Medical Registrar in the execution of his duties under this Act, by the treasurer of the Medical Council, out of the moneys received by the said treasurer by virtue of this Act.

XXI. The Medical Registrar shall, within thirty days after his appointment, and shall from time to time, till the 1st day of December, 1856, proceed to register in books to be kept for that purpose, to be called "The Physicians' Register, 1856," on payment of a fee of £1, the name and place of abode, together with a description of the testimonials, of every Physician who shall apply to be registered, and who shall at the time of such application be of at least 24 years of age, and who, prior to the commencement of this Act, shall have taken a degree in Medicine in any English, Irish, or Scotch University, or who shall produce his diploma or licence, or shall produce a duly-attested certificate, or such other proof as shall be satisfactory to the said Medical Registrar, of his having obtained a diploma or licence to practise as a Physician, dated prior to the said 1st day of December, 1856, and granted by any of the English, Irish, or Scotch colleges or corporations enumerated in Schedule (C.) to this Act No. 1; and the said Medical Registrar shall also, within the said period of thirty days, and from time to time till the said 1st day of December, 1856, proceed to register, in books to be kept for that purpose, to be called "The Surgeon's Register, 1856," on payment of a like fee of £1, the name and place of abode, together with a description of the testimonials, of every

Surgeon and Apothecary who shall apply to be registered, and who shall produce his diploma, certificate, or licence, or shall produce a duly attested certificate, or such other proof as shall be satisfactory to the said Medical Registrar, of his having obtained a diploma, certificate, or licence to practise as a Surgeon or Apothecary, dated prior to the said 1st day of December, 1856, and granted by any of the English, Irish, or Scotch Colleges or Corporations enumerated in Schedule (C.) to this Act No. 2, and also of every person who shall apply to be registered, and who was actually practising Medicine in England and Wales prior to the 1st day of August, 1815, and who shall sign a declaration according to the form in Schedule (D.), and also of every Surgeon and Assistant Surgeon of the Army and Navy who shall apply to be registered, and whose warrant of appointment bears date prior to the said 1st day of August, 1815.

XXII. The Medical Registrar shall, on and after the 1st day of December, 1856, proceed to register in books to be kept for that purpose, and on payment of a fee of £10, the name and place of abode, together with a description of the testimonials, of every Physician and Surgeon who shall apply to be registered, and who shall be qualified for registration as hereinafter provided.

XXIII. The Medical Registrar shall, in the month of February in every year, cause to be printed a correct register, in the form in Schedule (E.), of the names and places of abode of all persons who shall have been registered under the provisions of this Act, and who during the month of January next preceding shall have sent to the Medical Registrar their names and places of abode; and such register shall be called "The Medical Register;" and a printed copy of the Medical register for the time being, so published as aforesaid, shall be evidence in all courts, and before all justices of the peace and others, that the persons therein specified are registered according to the Provisions of this Act; and the absence of the name of any person from such printed copy shall be evidence, until the contrary be made to appear, that such person is not registered according to the provisions of this Act.

XXIV. All moneys received by the Medical Registrar shall be paid over to the treasurer of the Medical Council, and shall be applied to defray the expenses of carrying this Act into execution, and any surplus which shall remain shall be applied in forwarding Medical education and Medical science in such manner as the Medical Council shall think fit.

XXV. Any Medical Registrar who shall wilfully make or cause to be made any falsification in any matters relating to the register shall be deemed guilty of a misdemeanor, and shall, on conviction thereof, be sentenced to be imprisoned for any term not exceeding six months.

XXVI. After the said 1st day of December, 1856, the Medical Registrar shall require proof from every person who applies to be registered as a Physician that he has attained the age of twenty-six years, and that he has graduated in Medicine in some University of the United Kingdom or in some Foreign University approved by the Medical Council, and that he has been examined by and has received letters testimonial from one of the Royal Colleges of Physicians of England, Scotland, or Ireland.

XXVII. After the said 1st day of December, 1856, the Medical Registrar shall require proof from every person who applies to be registered as a Surgeon that he has attained the age of twenty-two years, and that he has been examined by and has received letters testimonial from the Colleges hereinafter named; (that is to say,) if in England, examined in Medicine and Pharmacy by the Royal College of Physicians of England, assisted by five Surgeons in general practice, to be appointed from time to time by the Medical Council, and examined in Surgery and Midwifery by the Royal College of Surgeons of England; and if in Scotland, examined by the Royal Colleges of Physicians and Surgeons of Edinburgh, or by the Faculty of Physicians and Surgeons of Glasgow; and if in Ireland, examined by the Royal College of Physicians and the Royal College of Surgeons of Ireland.

XXVIII. Every person registered as a Physician or Surgeon after December 1, 1856, shall cause himself to be admitted as a Member of the Royal College of Physicians, or of the Royal College of Surgeons, from which he shall have received his letters testimonial; or if he shall have received the said testimonials from the Faculty of Physicians and Surgeons of Glasgow, then as a member of that Faculty; but no person so offering himself for admission shall be required to pass any further examination, nor to pay any fee other than an admission fee; and every such Physician or Surgeon having been so admitted, who shall afterwards remove from that part of the United Kingdom in which he obtained his letters testimonial, shall cause himself to be admitted as a member of the corresponding College of that part of the United Kingdom to which he shall so remove, or if he is removing to Scotland as a member of the said Faculty, and shall be entitled to be so admitted without further examination, and on payment of an admission fee; and every Physician and Surgeon who shall not within three months after registration, or after such removal, cause himself to be so admitted shall be struck off the register, and shall not be restored until he shall have been so admitted, and shall have paid to the treasurer of the Medical Council such penalty as the Medical Council shall think fit, not exceeding £5 for each calendar month during which he shall have been so in default.

XXIX. If any of the said several Colleges or the said Faculty shall at any time strike off from the list of such College or Faculty the name of any one of their members who has been guilty of misconduct, such College or Faculty shall signify to the Medical Registrar the name of the member so struck off; and the Medical Registrar shall erase forthwith such name from the register, and shall not restore such name to the register until he shall receive from a College or Faculty a notification that his name has been placed upon the list of their members.

XXX. The said several Colleges and the said Faculty shall from time to time, when required by the Medical Council, prepare and lay before the Medical Council a scheme of the course of study and particulars of the examination to be gone through by all persons applying to such Colleges respectively for letters testimonials as Physicians or Surgeons, and of the fees to be taken for examination and admission into the said several Colleges respectively; and the Medical Council shall make from time to time such changes in any of the schemes so laid before them as to them shall seem expedient; and the Medical Council shall procure, as far as is practicable, that the qualifications and fees for the said testimonials shall be uniform, according to the nature thereof, throughout the United Kingdom; the course of study in every such scheme shall be of at least five years' duration.

XXXI. It shall be lawful for any person deputed by the Medical Council for that purpose, being a Physician if deputed to a College of Physicians, and being a Surgeon if deputed to a College of Surgeons, or to the said Faculty, to be present at any of the examinations held by any of the said Colleges or by the said Faculty, for the purpose of granting letters testimonial; and if the Medical Council shall be of opinion that the regulations prescribed by them for the examination and grant of letters testimonial have been infringed, evaded, or neglected by any of the said Colleges or by the said Faculty, it shall be lawful for the Medical Council to notify the same to the Medical Registrar, and no person shall be registered upon the testimonials of the College or the said Faculty so in default until the same be amended to the satisfaction of the Medical Council.

XXXII. Where by this Act it is provided that the concurrence of more than one Body is required for qualifying any person to be registered, the examination before such Bodies for his letters testimonial may be conducted either separately before examiners appointed by each Body, or before a joint Board of Examiners, to be appointed by each Body separately or conjointly, who shall be appointed in such number, manner, and form, and shall hold their examinations at such times and places, as such Bodies shall, with the approval of the Medical Council, agree from time to time among themselves, or as shall be determined by the Medical Council with respect to any point in which they shall not be agreed: and where there shall be separate examinations before examiners appointed by each Body, the subjects and fees of examination shall be divided among such Bodies as they shall from time to time agree among themselves, or as the Medical Council from time to time shall determine with respect to any subject on which they shall not be agreed.

XXXIII. The treasurer of the Medical Council shall enter in books to be kept for that purpose a true account of all sums of money by him received and paid, and such accounts shall, in the months of June and December in every year, be sub-

mitted by him to the Medical Council, and if the said accounts be found to be correct, the president shall sign the same, and they shall be published by the Registrar along with the Medical Register that shall be printed in the month of February next ensuing.

XXXIV. The Medical Council shall cause to be published under their direction and authority a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the Medical Council shall think fit, to be called "The British Pharmacopœia;" and the Medical Council shall alter, amend, and cause to be republished such Pharmacopœia as often as they shall deem it necessary.

XXXV. Every person registered under this Act shall be entitled to demand and recover in any Court of Law, with full costs of suit, reasonable charges for Medical and Surgical aid, advice, visits, and medicine rendered or supplied by him to his patients.

XXXVI. After the said first day of December 1856, no person shall be entitled to recover any charge in any Court of Law for any Medical or Surgical advice, attendance, or for the performance of any operation, or for any medicine prescribed, administered, or supplied by him, unless he shall prove upon the trial that he is registered under this Act.

XXXVII. After the said first day of December 1856, no person who is not registered under this Act shall be capable of holding any Appointment in any part of the United Kingdom in the capacity of a Medical Officer of Health, or of a Physician, Surgeon, or other Medical Officer, in the Military or Naval Service, or in any Hospital, Infirmary, Dispensary, Lunatic or other Asylum, Lying-in Hospital, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Workhouse or Poorhouse, Parish Union, or other public establishment, body, or institution, or to any friendly or other society for affording mutual relief in sickness, infirmity, or old age.

XXXVIII. After the first day of December 1856, the words "legally qualified Medical Practitioner," or "duly qualified Medical Practitioner," or any words importing a person recognized by Law as a Medical Practitioner, when used in any Act of Parliament, shall be construed to mean a person registered under this Act.

XXXIX. Every person not registered under this Act who shall wilfully and falsely pretend to be, or take or use the name or title of a Physician, Doctor, Bachelor of Medicine, Surgeon, or Apothecary, or any name, title, admission, or description, implying that he is registered under this Act, or that he is recognized by law as a Physician, or Surgeon, or Apothecary, or a Practitioner in Medicine, shall, on being summarily convicted of every such offence, before any two justices of the peace for the county, city, or place, where the offence was committed, pay a sum not exceeding £20, nor less than £5, to be recoverable as hereinafter described.

XL. Any two justices of the peace acting in and for the county, city, or place, in which the offence has been committed, may hear and determine any complaint made under the next preceding clause, on the oath of one or more witnesses, or by the confession of the accused party, and shall award the penalty or punishment herein provided for such offence; and in every case of the adjudication of a pecuniary penalty and of nonpayment thereof, it shall be lawful for the said justices to commit the offender to any gaol or house of correction within his jurisdiction for a term not exceeding six calendar months, the imprisonment to cease on payment of the sum due.

XLI. If any person shall wilfully procure or attempt to procure himself to be registered under this Act, by making or producing or causing to be made or produced any false or fraudulent representation or declaration, either verbally or in writing, every such person so offending, and every person aiding and assisting him therein, shall, upon being convicted thereof, be adjudged guilty of a misdemeanour in England and Ireland, and in Scotland of a crime and offence.

XLII. Any sum or sums of money arising from conviction and recovery of penalties as aforesaid shall be paid to the treasurer of the Medical Council.

XLIII. Every person who shall be registered under the provisions of this Act shall be exempt, if he shall so desire, from serving on all juries and inquests whatsoever, and from serving all corporate, parochial, ward, hundred, and township offices, and in the militia, and the name of such person shall not be returned in any list of persons liable to serve in the militia, or in any such office as aforesaid.

XLIV. It shall be lawful for the Medical Council to make regulations for dispensing with such provisions of this Act as to them shall seem fit, in favour of persons now practising Medicine or Surgery in any part of Her Majesty's Dominions other than Great Britain and Ireland by virtue of any degree in Medicine from any English, Irish, or Scotch University, or on any of the qualifications enumerated in Schedule (C.); and also in favour of persons practising Medicine or Surgery within the United Kingdom on foreign or colonial diplomas or degrees before the commencement of this Act; and also in favour of any Surgeons or Assistant-Surgeons in the Army, Navy, or Militia; and also in favour of Medical students who shall have commenced their Professional studies before the passing of this Act.

XLV. Nothing in this Act contained shall affect the lawful occupation of chemists and druggists.

XLVI. Nothing in this Act contained shall interfere with the privileges of duly licensed Apothecaries in Ireland.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

[Fifty-seven Unions have already declared in favour of Mr. Griffin's appeal on behalf of the Poor-Law Medical Officers, and the list increases daily. We understand a General Meeting will shortly be convened in London.]

Chelsea.—A meeting of the Medical Officers of the parish of Chelsea was held on February 20, 1856; present, Messrs. Keen, Brown, Ward, Dickinson, and Dr. Scatliff. "Resolved,—That Mr. Keen be requested to act as local Secretary and Treasurer." "Resolved,—That the Medical Officers of the parish of Chelsea acknowledge with much satisfaction the exertions of Mr. Griffin to effect an organization of the Medical Officers of Poor-Law Unions in England and Wales." "Resolved,—That in the opinion of this meeting it is expedient to co-operate with the other unions, in petitioning Parliament or otherwise, as may be determined by a majority of Union Medical Officers, with a view to the successful carrying out of the objects proposed, viz.:—'That the Medical appointments should be permanent; That the salaries should be increased and revised; and, That the districts should be examined;' as well as for the general melioration of the position of the Medical officers." "Resolved,—That this meeting is pledged to pay such quarterly, or other subscription, as may be found necessary." "Resolved,—That a copy of these resolutions be forwarded to Mr. Griffin, and to the Medical Journals." Thomas Keen, *Local Secretary*.

Wigton.—At a meeting of the Medical Officers of the Wigton Union, held on the 7th instant at the King's Arms, Wigton, it was resolved:—1. That the agitation first commenced by Mr. Wilkinson, Mr. Griffin, and others, for a more equitable remuneration to Medical Officers of the Poor-law Unions, be aided. 2. That the Medical Officers in each union be formed into an Association for that purpose. 3. That a local secretary be appointed for each such Association for conducting all necessary correspondence, etc. 4. That a public meeting should be held in London, as soon as practicable, at which the Profession generally should be invited to attend, and to co-operate; that subscriptions be raised, a general secretary appointed, and a committee formed. 5. That this meeting considers the Poor-law Commissioners, and the members of the local Boards of Guardians, or any other body of laymen, incompetent and unfit persons to be intrusted with the administrative management and control of Poor-law Medical affairs, they being entirely ignorant of the actual requirements of the Medical Profession in its relation to the Poor-law. 6. That this meeting is unanimously of opinion, that all Medical Appointments should be removed from under the control of the Poor-law Board and the Local Boards of Guardians, and placed under the supervision and authority of a Medical Board, properly appointed for that purpose, by the Government. 7. That it is the opinion of this Meeting that the Union Districts, as at present arranged, are too extensive, and that they should be remodelled and adjusted. 8. That the Poor-law Board be petitioned to instruct the Local Boards of Guardians

to pay the Medical Officers of Districts a proper remunerative salary, or a certain fixed sum per case, as may be agreed on, until the said union districts, are so remodelled and adjusted. 9. That in our opinion the salaries of the Union Medical Officers should be paid out of the consolidated fund, and not out of the local rates. 10. That a copy of the following resolutions relating to Vaccination, together with a copy of the subjoined suggestions, be forwarded to the London Committee, and recommended to their serious consideration. 11. That Mr. Wilkinson, of Aspatria, be appointed Local Secretary of the Association of Medical Officers of the Wigton Union. 12. That the thanks of this Meeting are due to Mr. Wilkinson, and Mr. Griffin, for their active and fearless exertions in behalf of the Union Medical Officers, whose support they deserve. 13. That a subscription of 5s., (more or less,) per quarter of a year, be paid by every Union Medical Officer to the Local Secretary of each Union, for the purposes specified in Mr. Griffin's letter on the subject. 14. That a copy of these resolutions be sent to the London Committee, and to the Medical Journals. 15. That the thanks of this meeting are due to E. Wilkinson, Esq., L.R.C.S.E., L.S.A., L.M., etc., Senior Medical Officer, Chairman; Mr. Nixon, Medical Officer; Dr. Speak; and Mr. Tiffin.

Rugby.—In compliance with Mr. Griffin's appeal to the Union Medical Officers, a meeting of the Medical Officers of the Rugby Union took place at the Eagle Hotel. There were present, Dr. Torrance, M.D., Rugby; J. C. Blanchard, Wolson; J. B. Robertson, Marton; G. F. Whately, Crick; S. B. Bucknill, M.D., Rugby. Resolved,—"That the thanks of the meeting be given to Mr. Griffin for his exertions in the cause of the Union Medical Officers." "That the meeting entirely concurs in the suggestions contained in Mr. Griffin's letter, and that the members will give him their best support." "That a subscription of five shillings a quarter be entered into to defray the necessary expenses."

Chailey, Sussex.—At a meeting of the Medical Officers of the Chailey Union, Sussex, held on the 20th inst., it was resolved unanimously:—1. That the thanks of the meeting be offered to Richard Griffin, Esq., for his kind exertions in the cause of the Union Medical Officers. 2. That William George Tiley, Esq., of Ditchling, be appointed local Secretary and Treasurer. 3. That the suggestions contained in Mr. Griffin's circular accord with the views of this meeting, which pledges itself to give him its best support. 4. That a subscription of 5s. per quarter be paid by each Medical Officer of this Union, to defray the necessary expenses. 5. That a copy of these resolutions be forwarded to Mr. Griffin, and to the Journals.

Reading.—A very large and influential meeting was held at the Great Western Hotel, Reading, on Wednesday, 20th instant, consisting of Medical Officers of the Reading, Wokingham, Henley, Bradfield, Hartley-Witney, Newbury, Wallingford, Basingstoke, and East Hampstead Unions, in support of the movement commenced by Mr. Griffin, of Weymouth. The Mayor of Reading, (S. L. Walford, Esq.,) in the chair. There were present—Messrs. Vines, Walford, and Workman, (Reading,) Luce and George May, junr., (Wokingham,) Jeston, Brooks, and Young, (Hedley,) Smith, Kidgell, and Waldron, (Bradfield,) McIntyre, M.D., (Hartley-Witney,) Ball, (Basingstoke,) Watts, (Newbury,) Breach, (Wallingford.) Letters were received from other Medical Officers of these Unions, expressing their hearty concurrence in the object of the meeting, and their regret at being unavoidably absent. The meeting was also favoured with the support of Drs. Cowan and Wells, and other influential members of the Profession, and the greatest unanimity and cordiality prevailed. The following resolutions were proposed, and carried unanimously,—1st. That this meeting pledges itself to further the movement commenced by Mr. Griffin for a more equitable adjustment of the remuneration to Poor-law Medical Officers. 2nd. That this meeting considers the present mode of payment objectionable, affording, as it does, facilities for the guardians and overseers to grant relief indiscriminately at the expense of the Medical Officers, and it considers that the mode of remuneration at per case, as proposed and recommended by the Poor-law Commissioners, (in their minute, dated June 6th, 1839, and repeated in 1841. Vide *Association Medical Journal*, December 28, 1855;) that which will best secure the interests of the patients, and that also of the Medical Officers. 3rd. That the remuneration of the Medical Officers be paid entirely out of the Consolidated Fund. 4th. That the list of cases classed under "Extra Medical Fees" be extended. 5th. That for the efficient carrying out of these resolutions, it is expedient that a petition from each Union, be presented to the House of Commons, and that the county and borough members be earnestly requested to support its prayer. 6th. That Messrs. Luce and Young be the Secretaries of the Associated Medical Officers of these Unions, and that one or both of them be requested to attend as a deputation at the meetings to be held in London, and that a committee be formed consisting of Messrs. Vines, Walford, and Workman, to assist the Secretaries in carrying out the objects of this meeting. 7th. That the Secretaries be requested to apply to the Medical Officers of these Unions, for a contribution of five shillings, for the purposes specified in Mr. Griffin's letter on the subject, (*Association Journal*, December 21, 1855), and that if necessary, they be authorized to apply for a further contribution. 8th. That the cordial thanks of this meeting be given to Mr. Griffin, for his unceasing and disinterested exertions on behalf of the Union Medical Officers. 9th. That a copy of the foregoing resolutions be forwarded to those Medical Officers who have been unable to attend this meeting, to Mr. Griffin, and to the Medical Journals.

EAST INDIA COMPANY'S SERVICE.

The following are the questions proposed to the Candidates for the appointment of Assistant-Surgeons to the East India Company's Service:—

ANATOMY AND PHYSIOLOGY.

Monday, January 14, 1856.—10 *to* 1 *o'clock.*

Mr. Busk.

1. Descriptive Anatomy.

1. Describe the knee-joint, and enumerate the tendons, vessels, and nerves which pass exteriorly to it, noticing their relative positions.

2. Describe the course, relations, and branches of the superficial and deep femoral arteries.

3. Describe the membranous portion of the male urethra—its form, relations, and structure.

4. Describe the lacrymal apparatus, together with the muscles, vessels, and motor nerves in the orbit.

5. Indicate the boundaries of the upper opening of the thorax; enumerate the parts which pass through it, and describe their relative positions.

6. Indicate the situation of the ganglia of the sympathetic nerve in the head and neck, and describe their connexions with other nerves.

2. Minute Anatomy and Physiology.

7. Describe the minute structure of the selerotic, cornea, and iris.

8. Describe the structure and functions of the skin; indicating the principal differences existing in various parts of the body.

9. Describe the minute structure of the liver and the functions of that organ.

10. What are the physiological effects, in man, of suspended or deficient respiration?

MEDICINE.

Monday, January 14, 1856.—2 *to* 5 *o'clock.*

Dr. Walshe.

1. Enumerate the chief morbid conditions under which the urine, as discharged from the bladder, may contain albumen, arranging them under the heads of depraved states of the blood, diseases of the urinary and genital organs, and accidental admixtures of genital products. Comment on the general characters and relative importance of the albuminous impregnation of the fluid occurring in each of the three classes.

2. Contrast the anatomical characters of hepatized and collapsed lobules of the lung, and state under what circumstances lobular collapse is observed.

3. Distinguish severally the murmurs of: (a) aortic regurgitation and tricuspid obstruction; (b) aortic obstruction and mitral regurgitation.

4. Compare scurvy and purpura in regard of causes, chemical constitution of the blood, anatomical characters, and symptoms.

5. Describe the symptoms and physical conditions, in its different stages, of cancer of the cervix uteri.

6. What treatment would you adopt for the following diseases: (a) laryngismus stridulus, during the paroxysm and in the interval; (b) the uric acid diathesis; (c) uræmic apoplexy in an advanced case of "Bright's Disease"?

[You are expected to write prescriptions in Latin, without using abbreviations, for any two of the medicines you may recommend.]

7. State what you know of the diagnosis of acute phthisis.

8. What are the distinctive characters of the delirium of typhoid fever, of acute meningitis, of delirium tremens, and of acute mania?

NATURAL HISTORY.

Tuesday, January 15, 1856.—10 *to* 1 *o'clock.*

DR. HOOKER.

BOTANY, ETC.

Five or more of the following Questions should be answered.

1. Describe the processes of respiration and reproduction in flowering plants.

2. What is the albumen of the seed? Give examples; and of the uses and chemical or microscopical characters of any kinds.

3. Describe the fruits of a raspberry, strawberry, mulberry, and fig.

4. To what natural orders of plants do the sugar-cane, cocoa-nut, rice, potato, yam, carrot, and turnip belong?

5. What parts of what plants produce cloves, mace, cinnamon, ginger, pepper, cayenne pepper, and mustard; and to what natural families do they severally belong?

6. Give the botanical characters of any of the following natural orders of medicinal plants:—flax, hemp, stavesacre, black hellebore, valerian, rhubarb.

7. What does the fruit of an acorn, hazel-nut, chestnut, and walnut, consist of?

8. What are the divisions of the natural orders *Rosaceæ*, *Leguminosæ*, *Compositæ*, and *Ranunculaceæ?* and give examples of any medicinal plants contained in them.

9. What are the principal cereal grains; and in what parts of the world are they severally most cultivated?

10. What are the chief alimentary plants cultivated in England and in India, and to what natural orders do they severally belong?

11. Of what part does a grain of barley consist; and why should pearl-barley be preferred for dietetic purposes?

12. Which is most nutritious, wheat, oats, rice, or potato; and what bad effects have been attributed to any as an article of diet?

13. How would you detect a mixture of wheat-flour and pea-flour; and what is the relative value of each as an article of diet?

14. Under what form is starch generally found, and what are its chemical and microscopical characters?

15. Give examples of poisonous plants belonging to the natural order *Solancæ;* and of their effects when given in poisonous quantities.

16. What are the active principles of opium; and in what do Egyptian, Turkish, and Indian opium chiefly differ?

17. What plants have yielded a substitute for quinine; to what natural orders do they belong, and where are they found?

18. How is sugar formed during the germination of seeds?

19. How are gums distinguished from resins? Give examples of each, and state what parts of what plants produce them.

20. What natural orders of plants produce iodine and barilla, and how are those substances procured?

21. What is the action of woods, forests, etc., in modifying the healthiness of a tropical locality? Under what conditions may they be beneficial, and under what prejudicial?

22. What are the specific effects of an elevated region in the tropics on the human frame; and the causes of these effects? Give examples of their beneficial or prejudicial effects.

23. What are the mechanical and chemical constituents of the atmosphere; and in what way does an excess of any of these constituents affect the human frame?

COMPARATIVE ANATOMY AND ZOOLOGY.

Three or more of the following questions should be answered.

1. Give a general comparative view of the circulatory system in the principal divisions of animalia.

2. What are the prominent differences between the skeletons of simiadæ and of man?

3. Describe the respiratory system in reptiles, fish, and mollusca.

4. What are the sub-orders of birds, and what are their prominent characters used in classification?

5. To what sub-order of insects does the honey-bee belong; what are its metamorphoses; and what is the economy of a hive?

6. How many species of leech are ordinarily used in Medical practice; and what is the structure of their mouth and mode of biting?

7. What parts of what animals produce isinglass, cod-liver oil, sperm-oil, and spermaceti?

8. What are the external and internal parasites that affect the human body; to what orders of animals do they belong; what parts of the human body do they chiefly affect; and what are their general appearances and habits?

9. Mention some of the genera or tribes of animals that contribute most to the impurity of stagnant water.

10. In what way does a proper mixture of animal and vegetable life operate in preserving the purity of water?

SURGERY.

Tuesday, January 15, 1856.—2 *to* 5 *o'clock.*

MR. PAGET.

1. With what injuries may dislocation of the radius and ulna, backwards, at the elbow-joint, be confounded? and by what signs would you distinguish it?

2. Describe and explain the usual consequences of a foreign body, such as a piece of a catheter, remaining in the urinary bladder.

3. Write a "Diet Table" such as you would recommend, or such as may have been used for Surgical patients in any Hospital you have attended; stating the kinds and quantities of food proper for "Low Diet," "Full Diet," and a "Diet" intermediate between these two.

4. Describe the chief varieties of ulcers that occur in the tongue; and state the treatment you would advise for each.

5. What are, in this country, the chief external diseases that may be ascribed to insufficient food, with hard labour, exposure to cold, and other common miseries of poverty?

6. What swellings may be confounded with femoral hernia; and what are the chief characteristic signs of each?

7. Make lists of the instruments and other appliances you would have ready for each of the following operations:—Extraction of cataract, strangulated inguinal hernia, castration.

8. Describe the phenomena of inflammation, as seen with the naked eye, in consequence of a foreign body, such as a small fragment of metal, being lodged in the substance of the cornea.

9. A man, 40 years old, was admitted into an hospital in a very feeble state, slightly feverish, with occasional nausea, and a small frequent pulse. His bowels were open daily, and the fæces were solid, but mixed with blood in variable and uncertain quantity. The skin of the right groin was thin, red, swollen, and tender, and, after a few days, a gurgling sensation could be felt beneath it. He stated, that for several months he had observed small discharges of blood from the intestines, but no material disturbance in the manner of their action. Three weeks before admission, he first felt a pain in the right groin, which prevented his moving about, and was soon followed by swelling in that situation.

How would you treat such a case? and if, as happened in this instance, the patient should die in a few days, what would you expect to find in the examination of the body after death?

The next examination will take place on the 14th of July, and the vacancies to be filled are about thirty.

PARIS ACADEMY OF SCIENCES.—The Annual Meeting of the Paris Academy of Sciences has again passed off without adjudicating the great prize in the department of mathematics. It was announced that M. Bordin has bequeathed an annual sum of 3000 francs for the best essay on themes having for their object the public interest, the good of humanity, the progress of science, and the national honour.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Monday, Feb. 25.

Colonel Preston presented a petition from Practitioners of Weymouth, also Mr. Osman Ricardo, from Stoneport, in favour of the Medical Reform Bill.

THE LATE SMITHFIELD MARKET.

Mr. K. Seymer wished to know whether it was the intention of the government to sanction the establishment of a dead-meat market on the site of the late Smithfield market.

The Chancellor of the Exchequer said the government had come to no decision on the subject; they had referred it for investigation to a commission consisting of the President of the Board of Health, the Under-Secretary of the Home office, and a Lord of the Treasury, and they were awaiting the report.

Mr. K. Seymer inquired whether, before any final decision was come to on the subject, the report of the commission would be laid before the House of Commons.

The Chancellor of the Exchequer said he could hardly give any promise till he knew what was the nature of the report. (Laughter.) The object of the government was to obtain a report for their own guidance, and not for the information of parliament; but, probably, there would be no objection to lay the report before parliament.

MONDAY, February 26.

Petitions were presented by Mr. Tite from the Bath and Bristol Medical Association, in favour of the Medical Reform Bill; also by Mr. Bonham Carter, from Practitioners of Manchester,

POOR LAWS.

Mr. Pigott asked the president of the Poor Law Board whether it was the intention of her Majesty's Government to carry into effect the recommendations contained in the report of the select committee on Medical Relief of Session 1854, or to make any change in the present system, and was informed that it was the intention of the government to adopt some of the recommendations of the committee, and that, after the appointment of a Medical officer he would not be removable.

THE CRIMEAN COMMISSION.

Sir De Lacy Evans rose to put a question relative to the extraordinary discrepancy in the statement of her Majesty's Government, as to the reasons for withholding the information obtained by the Crimean Commissioners relative to the mortality in the British army in the Crimea. The document to which he referred in one part stated that the mortality returns for the different regiments accompanied it, but doubt existed on the part of the commission whether it was desirable to lay those returns before the House; while, on the other hand, it had been stated, that the report had been laid, in an entire state, before the House. He wished to ask which of the statements was correct.

Mr. F. Peel said that he did not admit that there was any discrepancy with respect to the statement that had been made relative to those mortality returns. The statement that he had made was precisely that which he had received from Lord Panmure. The mortality returns, he believed he was correct in stating, formed a part of another document.

Sir D. L. Evans—Is it the intention of the government to produce those returns?

Mr. F. Peel said it was not.

Sir D. L. Evans—The return is to be of no use.

WEDNESDAY, February 27.

Petitions were presented by Mr. Foley, from Mr. Hobbs, Medical Practitioner, residing at Bell Broughton, Worcestershire; Sir J. Walmsley, from members of the Medical Profession at Leicester, in favour of the Medical Reform Bill.

MEDICAL NEWS.

Bequests.—Mrs. Mary Ann Utten, of Michael's-place, Brompton, has bequeathed £100 to the Royal Free Hospital; Mrs. Jane Simson, of Coventry, £100 to the Coventry and Warwickshire Hospital; and W. M. Nurse, Esq., £100 to the Middlesex Hospital.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 14, and Thursday, February 21, 1856:—

Baker, James Bowyer, Hargrave, Northamptonshire.
Barnes, John Edward, Army.
Bewley, Charles, 142, St. John-street-road, London.
Blades, Charles Carlett, Tattershall, Lincolnshire.
Daniel, George Williamson, Blandford, Dorset.
Davis, Theodore, Cevedon, Bristol.
Hadfield, James, Newcastle-on-Tyne.
Pemberthy, John, Redruth, Cornwall.
Porter, John Venney, Isle of Wight.
Rotheran, Robert, Stilwell, Epsom.
Sprigg, Charles, St. Neots, Hunts.
Stevens, Alfred, Stoke Hammond, Bucks.
Turle, James, Taunton.
Wallen, W. Sowerby, 3, Walker-place, Rotherhithe.

DEATHS.

Baines.—February 19, at Cheltenham, Philip Ottey Egerton Baines, M.R.C S., in his 44th year.

Bassano.—February 1, at Balaklava, of fever, in his 32nd year, much lamented by his brother officers and friends, Christopher Bakewell Bassano, Esq., Staff-Surgeon, son of F. M. Bassano, Esq., Apothecary to the Forces. M.R.C.S.E. 1848.

Byles.—February 27, at Philadelphia-place, Hackney-road, Samuel Byles, Esq., Surgeon, aged 57. M.R.C.S.E. 1843; L.S.A. 1821; Surgeon to Bancroft's and the French Hospitals.

Gilborne.—January 25th, at Yenikale, Crimea, aged 21, John Henry Gilborne, Assistant-Surgeon 71st Light Infantry.

Harwood.—February 15, at Tunbridge-place, New-road, George Harwood, Esq., Surgeon. L.S.A. 1828.

Makin.—February 15, at Walnut Bank, near Lancaster, William Henry Makin, Esq., Surgeon, in his 26th year.

Salter.—Died at Poole, in Dorsetshire, February 20, Thomas Salter, I.P., F.R.C.S., F.L.S., etc., aged 70. Mr. Salter was one of the oldest and one of the most respected of the inhabitants of Poole. He practised his Profession there for more than forty-five years, and his sudden death has deprived his friends of a trusted Medical adviser, and his patients of a valued friend. Amidst the labours and distractions of a large provincial practice, Mr. Salter found time to furnish many valuable contributions to the literature of his Profession; to make himself a complete and critical master of that literature; to form an anatomical and pathological museum; to lay the foundation of sound Professional knowledge and a love of their art in the minds of his numerous pupils, many of whom are now scattered over the country and hold a high position in the ranks of their Profession; and to exercise a powerful influence in all social questions in his town and its neighbourhood. Mr. Salter's principal contributions to the literature of his Profession are to be found in the Transactions of the Medico-Chirurgical Society, and the Medical journals: among them are papers "On the use of Arsenic in the cure of Chorea"—"Cases of Fracture of the Thigh from Cancerous Degeneration of the Bone"—"Case of Carditis"—some papers on "The Use of the Cotyledon Umbilicus in the treatment of Epilepsy"—and others on various subjects. Mr. Salter was elected an Honorary Fellow of the College of Surgeons in 1844. He long held a Commission of Justice of the Peace for the town and county of Poole, to which his social position fully entitled him. Death found him where life had long held him—at the laborious discharge of his duty. He was suddenly seized with dyspnœa on the evening of the 20th, after a hard day's work, when on his way to visit some sick poor; unable to proceed, he entered the house of a friend, and calmly expired ere any of his family could reach him. Death may almost be said to have surprised him at his post—if death can ever surprise one with whom it is always present by contemplation. Mr. Salter has left three sons in the Profession; his fourth, and youngest, was Surgeon to H.M S. the Prince, and was drowned in that ill-fated vessel in the gale of the 14th of November, 1854, off Balaklava. Mr. Salter was distinguished by an untiring zeal in the pursuit of his Profession and a laborious

activity in its practice, by a thirst for knowledge that nothing could satisfy, by liberality in politics and charity in religion, by a high standard of Professional ethics, by a conscientious devotion to his patients, the poor just as much as the rich, and by a prodigality of trouble in their service, by great singleness of purpose, by a child-like simplicity, by the most disinterested self-sacrifice and disregard of personal trouble and suffering, by an acquiescent diffidence rarely found united with such great knowledge and experience, and by a nature singularly affectionate. Mr. Salter pursued his Medical studies at St. Thomas's Hospital.

WILLIAMS.—February 12, at Beverley, Yorkshire, John Williams, Esq., M.D., aged 64. Justice of the Peace. M.D. St. Andrew's 1832; M.R.C.S.E. 1812; Senior Physician to the Beverley Dispensary; formerly Surgeon to the 23rd Regiment of Foot.

APPOINTMENTS.

HOSPITAL STAFF.—Deputy Inspector-General of Hospitals Wm. Linton, M.D., to be Inspector-General of Hospitals, with local rank, *vice* Alexander Cumming, who retires upon half-pay. Staff-Surgeon of the First Class, Archibald Gordon, M.D., to be Deputy Inspector-General of Hospitals. Staff-Surgeon of the First Class, Samuel Maitland Hadaway, to be Deputy Inspector-General of Hospitals, *vice* Linton. Deputy Inspector-General of Hospitals, Thomas Alexander, to have the local rank of Deputy Inspector-General of Hospitals in Turkey. Staff-Surgeon of the First Class, James Mouat, to have the local rank of Deputy Inspector-General of Hospitals in Turkey.

THE LATE DR. MACGILLIVRAY.—The "Natural History of Deeside and Braemar," by this lamented naturalist, has just appeared, having been printed for private circulation, under the able editorship of Dr. Lankester. We understand that Her Majesty, with the twofold motive of befriending the widow of Dr. Macgillivray, and, at the same time, of communicating the result of his labours to the lovers of science, purchased the manuscript, and copies have been liberally presented to naturalists personally and to the national libraries by Prince Albert.

WILL.—The Will of the late Thomas Collier, Esq., of Brackley, Surgeon, has been sworn under £12,000.

LINCOLN COUNTY HOSPITAL.—A proposition to appoint a lady, who had acted as superintendent at Scutari, to the same post at the Lincoln Hospital, has been withdrawn after considerable discussion on the part of the Governors. The proposal was brought forward by the Bishop of Lincoln, but opposed on the grounds that the appointment would interfere with the authority of the matron. It appeared also that some objections were made to the religious opinions of the lady who was proposed.

SOCIETY FOR THE RELIEF OF THE WIDOWS AND ORPHANS OF MEDICAL MEN.—The annual dinner of this excellent Charity was held on Saturday last, at the Freemason's Tavern, Sir Benjamin Brodie, Bart., Vice-President, in the Chair. He was supported by Dr. Bright, Dr. Addison, Mr. Tidd Pratt, Mr. Stone, Mr. Tegart, and other old friends of the Society. The speeches were very good, the donations characterized by their usual liberality, and the condition of the funds was declared to be prosperous. Sir Charles Clarke was prevented from attending by indisposition, but his two sons responded to the toast to their father's health. The dinner was one of first-rate excellence, and the enjoyment of the evening was much enhanced by the performances of professional singers, who executed several ballads, songs, and glees, in a most satisfactory manner. We must again remind all the members of our Profession living in London and its vicinity, of the claims which this Society presents to their support: those who are not in affluence may, by its means, leave a provision for their widows and children; and those who are in prosperous circumstances may have the gratification of assisting their less fortunate brethren.

ATTEMPTED ENCLOSURE OF HAMPSTEAD HEATH.—The Metropolitan Board of Works have directed their attention to this matter, and the following notice of motion has been given:—"To call the attention of the Board to the importance of taking proceedings without delay for securing Hampstead Heath and certain adjoining land as a place of public recreation for the inhabitants of the Metropolis."

ST. PANCRAS WORKHOUSE.—DR. BENCE JONES'S REPORT.—During the past month Dr. Bence Jones, accompanied by one of the inspectors under the Poor-law Board, has been making a searching investigation into the condition of the above Workhouse and the general treatment of the poor. His report, which occupies eighteen pages, describes the state of the Workhouse to be highly unsatisfactory. There are 300 more in the house than there were in 1846. The wards are described as being offensive, and almost without ventilation. In four of the six principal wards there was a draught of air from without, passing through the privy into the ward. The Medical Officer is reported to have stated that the crowding of the wards accounted for the slowness of the recovery of many patients. . . . In the women's receiving and casual ward as many as 80 and upwards slept nightly. In order to test the purity of the air, directions were given that the windows were not to be opened. This was disobeyed, the inmates declaring that if they had not opened the windows they would have been stifled. Omitting the children, the average space was 164 cubic feet per person. The air contained 1·14 per cent. of carbonic acid. Both the Medical Officers of the Workhouse stated that the offensiveness of their wards was excessive, and that fever had been the result. . . . The stench in the night-nurses' sleeping room is described by Mrs. Gray as terrible. Testing the air, it was found to contain 2·75 per cent. of carbonic acid. In the infant nursery Dr. Jones found in bed 25 mothers and 30 children, from 10 months to five weeks old. The room was very offensive, and contained nearly 2 per cent. of carbonic acid. Diseases of the digestive organs and mesenteric disease were prevalent. The children's bed-room is similarly described:—there had been eight children, between 1 and 7 years old, sleeping in one bed, 4 feet 6 inches broad, and 5 feet 6 inches long; and that cutaneous disease had spread from the closeness of the children. The men's dayrooms and insane wards are described as being fearfully overcrowded. One sleeping apartment is described as a cellar, where 15 persons sleep. There was no chimney to the room, and no means of ventilation, except one small window in the door. The report adds—"The place was fit for a coal-hole, but not for human beings to sleep in. The laundry is formed out of a cellar on the other side of the passage. How the required work can be done in this place I cannot comprehend. On the same level underground was a low long room seven feet two inches high, containing 32 sleepers." The arrangement for the administration of out-door relief is depicted as most defective. As many as 900 are sometimes relieved in one day. The applicants are crowded into pens, the air being most offensive, frequently causing women to faint. "At half-past five o'clock as many as 150 still remained unrelieved. They had no food all day, and many of them stated that they did not expect any until seven o'clock." Mr. Birchmore, the relieving overseer, states that his predecessor died from the effects of the foul air of this underground office, into which the directors were unwilling to come. Dr. Jones adds, "I cannot sufficiently strongly express the opinion I have formed of the evils which result from the cold, wet, foul air, and fasting, which the poor endure. While endeavouring to obtain out-door relief, they are exposed to disease, and even to death."

MARYLEBONE VESTRY.—On Saturday, Dr. Thomson, the recently-appointed Officer of Health under the provisions of the Metropolis Management Act, attended before the Board with his first report on the subject of the sanitary state of the parish. In the report, Dr. Thomson alluded to the population of the parish and the general ratio of mortality since the period he had been appointed to his duties, but it was found a difficult question, under present circumstances, to arrive at a definite mortality-table, as he found that a number of non-parishioners died within the district; while, on the other hand, a number of parishioners died outside the parish boundary. With respect to the population in 1851, it was 157,696; and in 1856, 168,000. Mr. Babbage, Dr. Bachhoffner, Dr. Russell, Mr. Jackson, and other gentlemen, commented upon the talent which had been exhibited by Dr. Thomson in his very able report, and trusted every effort would be made by the vestry to assist his researches. The report was adopted, and ordered to be printed; the following sanitary committee being, at the same time, appointed to assist Dr. Thomson in his statistical researches—viz., Dr. Russell, Dr. Bachhoffner, Mr. Freeth, Mr. Bridgman, Mr. D'Ifanger, jun., Professor Marks, Mr. Eale, Mr. J. Bell, Mr. Babbage, Mr.

Beever, Mr. W. R. Williams, and Mr. Hutchons. A seat was allotted to Dr. Thomson at the Board, and offices set apart for his special duties at the court-house. Two inspectors of nuisanees were appointed to assist the Medical officer in his duties, and attend to the general sanitary condition of the parish—Messrs. Windle and Porter.

THE LATE FLOUR ADULTERATION AT WAKEFIELD.—On the hearing of the late flour adulteration case, in which Abraham Ginn, a flour dealer, of Wakefield, was defendant, it will be remembered that forty bags (thirteen consisting of sharps, and twenty-seven of flour) out of the quantity taken from Ginn's premises were ordered by the magistrates to be retained for the purpose of being analyzed, and accordingly the Rev. W. R. Bowditch and Mr. Statter, surgeon, on the part of the proseeution, and Mr. Ross, on behalf of the defendant, were instructed to analyze the same. The analysis being concluded, the result was reported to the magistrates at the Court-House on Monday, when the whole of the forty bags of flour were ordered to be sold for pigs.—*Leeds Mercury.*

AT Rio the cholera is still raging, and the deaths averaging ten daily; the same state of things prevailed at Bahia and Pernambuco, and the other provinces.

THE RECTORSHIP OF MARISCHAL COLLEGE.—We learn that letters have been received from the Duke of Newcastle, and from the Lord Advocate, declining to be nominated for the Rectorship of Marischal College.

BERMUDA.—An exquisitely wrought gold lancet-case, furnished, has been presented to John Rees, Esq., Surgeon, Deputy Inspector of Hospitals, R.N., from the members of "Atlantic Phœnix Lodge" of Freemasons, Ireland Island, in appreciation of his kindness in skilfully and successfully performing a Surgical operation for "Hernia" on their Worshipful Master, Brother B. H. Young.

SIR RODERICK MURCHISON has been reeently elected a Trustee of the Hunterian Museum of the Royal College of Surgeons.

MUNIFICENT DONATION.—In a very interesting summary of the educational votes of America we find it stated that Mr. Astor, (whose father founded the great public library in New York, at a cost of half a million of dollars,) without ostentation, at an ordinary meeting of the managing committee, has announced his intention of enlarging the first Astor's idea with respect to the library. He very quietly placed a hundred thousand dollars—more than £20,000—at the disposal of the committee for the current year!

COMMITTEE ON THE ADULTERATION OF FOOD, DRINKS, AND DRUGS.—This committee, re-appointed from last session, re-assembled on Wednesday, for the first time, to continue their inquiry; Mr. Scholefield in the chair. The other members being Lord Goderich, Lord C. Hamilton, Mr. Wyse, Mr. Sheridan, Mr. Lockhart, Mr. Gregson, Mr. Moffatt, Mr. Peacocke, and Mr. Swift. Dr. Taylor underwent a long examination. It was for the committee to determine whether the remedy for adulteration rested with the legislature or the public. The quack medicines, so largely sold in the present day, contained very drastic purgatives, and as they were frequently used indiscriminately for all diseases, were very injurious to health. He was of opinion that the adoption of the French system in cases of detected adulteration would be desirable, as well as the establishment of a central board in London for general public supervision. Mr. Abbiss, an extensive tea-merchant, established for upwards of twenty years in Gracechurch-street, deposed to a belief that the statements made before the committee last session were entirely untrue and got up; that tea was generally pure; and that he would challenge the previous witnesses to produce two pounds of adulterated tea in town. It was all assumption to say that sugar was adulterated to the extent of ten per cent.

MORTALITY NOTABILIA.—The Returns continue to show a very satisfactory state of the public health. In the week that ended on Saturday the deaths of 1062 persons, viz. 541 males and 521 females, were registered. In the corresponding weeks of the years 1846–55 the average number was 1200, which if raised in proportion to increase of population, becomes 1320. Hence the deaths returned last week were less by 258 than would have occurred in the present population under the average rate of mortality at this period of the year. Eight deaths from typhus were returned from Islington West, the sub-district in which the Fever Hospital is situated. Hoxton and Haggerstone seem to suffer from it to some extent. Hooping-cough has lately been very prevalent in Pentonville; but in the London districts generally it was less fatal last week than is usual in the month of February. Twelve children died of croup; one of purpura, one of intermittent fever, 2 of infantile remittent fever. One person died of influenza, and one of rheumatic fever. Phthisis was fatal in the week to 133 persons, about half of whom were carried off after they had completed their twentieth year, and before they had passed their fortieth.

BIRTHS.—The births of 885 boys and 933 girls, 1818 children, were registered, average 1554.

METEOROLOGY.—The mean height of the barometer in the week was 29·792 in. The *highest* reading was 30·09 in. at the end of the week. The mean temperature of the week was 35·6°, which is 3·6° below the average of the same week in 38 years (as determined by Mr. Glaisher). The mean temperature was below the average on every day except Saturday. On Thursday it was only 33°, which is 6·3° below the average.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	3	4	4	4	6
North	490,396	2	5	5	10	2	21
Central ..	393,256	2	1	6	8	..	11
East.....	485,522	3	3	3	8	1	13
South	616,635	1	5	10	10	4	6
Total..	2,362,236	10	17	28	40	11	57

DEATHS IN PUBLIC INSTITUTIONS for the Week ending February 23:—

	Males.	Females.	Total.
Workhouses	65	69	134
Prisons	..	1	1
Military and Naval Asylums ..	8	..	8
General Hospitals	39	32	71
Hospitals for Special Diseases ..	10	6	16
Lying-in Hospitals	2	..	2
Military and Naval Hospitals ..	10	..	10
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	3		3

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, February* 23, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, February 23, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp. °	35·6						° 40·4
Mean Temperature							
ALL CAUSES	1062	460	153	200	212	37	1200·2
SPECIFIED CAUSES	1057	457	152	199	212	37	1196·1
DISEASES:—							
1. Zymotic Class	203	147	24	15	15	2	228·8
2. Dropsy, Cancer, and others of uncertain seat	51	4	3	25	17	2	51·4
3. Tubercular Class	173	54	67	40	11	1	201·9
4. Of Brain, Nerves, etc. ..	117	50	9	25	30	3	135·9
5. Of Heart, etc.	62	6	12	17	24	3	49·6
6. Of Respiratory Organs ..	203	88	21	35	53	6	264·3
7. Of Digestive Organs ..	59	23	3	17	14	2	60·4
8. Of Kidneys, etc.	12	1	3	4	3	1	14·0
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	..	4	2	..	..	7·8
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	11	1	2	5	3	..	9·3
11. Of Skin, etc.	5	3	..	2	..	..	2·1
12. Malformations	3	3	..	..	..	..	4·8
13. Debility from Premature Birth, etc.	28	28	..	..	..	..	25·9
14. Atrophy	30	18	..	1	11	..	26·4
15. Age	41	..	..	..	24	17	60·5
16 Sudden	12	5	..	2	5	..	11·3
17. Violence, Privation, etc...	41	26	4	9	2	..	41·7
CAUSES NOT SPECIFIED.. ..	5	3	1	1	..	..	4·1

BOOKS RECEIVED.

Archiv des Vereins für gemeinschaftliche Arbeiten zur Forderung der wissenchaftlichen Heilkunde. Göttingen. 1855.
Journal do Médecine de Bordeaux. Janvier et Février. 1856.
Chemistry: Theoretical, Practical, and Analytical, as applied and relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XX. Glasgow: Mackenzie.
Medical Anatomy. By Francis Sibson, M.D., F.R.S. Fasciculus IV. London: Churchill.
Surgical Anatomy. By Joseph Maclise. Second Edition. Fasciculus XI. London: Churchill.
A Manual of British Butterflies and Moths. By H. T. Stainton. London: John Van Voorst.

TO CORRESPONDENTS.

A. Y.—A person possessing the qualifications described would be allowed to register under the new Bill.

Mr. John Glen, M.A.—We have received a "Reply to Dr. M'Gilchrist's Remarks on Professor Bennett's Introductory Lecture—the Present State of the Theory and Practice of Medicine, by John Glen, M.A., President of the Hunterian Medical Society. Edinburgh: Sutherland and Knox." Dr. John Hughes Bennett is too well known as a most accomplished practical pathologist to heed Dr. M'Gilchrist's attacks, or to need Mr. Glen's defence. Dr. M'Gilchrist, so far as we can understand the dispute, objects to Dr. Bennett's definitions of Medical science and Medical art, and his opinions on the respective merits of the rational and empirical methods. Differences on such topics are not new. We can only say, that Dr. Gilchrist's logic appears uono the better for the unmerciful analysis of Mr. Glen.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—A most distressing case occurred lately at Tipton, in South Staffordshire, in which a woman was attended in her confinement by a certain person, one of that select race of men usually denominated quacks. It appears that labour commenced on a Thursday, which night he remained with her until 2 p.m. on Friday, when he left. From that time she continued in the same state until 6 a.m. on Saturday, when the child was born dead. He arrived about twenty minutes afterwards. A short time elapsed, when she appeared to the attendants to be in a fit, and expired. About eleven of the same day a post-mortem was made, and the uterus was found ruptured to the extent of four inches, commencing just above the cervix on the left side, with great extravasation of blood. The Medical evidence at the inquest was to the effect that she died from rupture of the uterus, occasioned by prolonged labour, but of course, as no one but this young inexperienced man was present, it was impossible to state at what stage the labour had advanced on Friday, or whether if a qualified man had been present this fatal case would have been prevented. He, it appears, was totally ignorant of any laceration I was much surprised that a qualified man in the neighbourhood should harbour quackery, as he was present at the post-mortem, and always assists the person alluded to in any serious case he may have under his care. He, therefore, lowers himself in the estimation of his brother Practitioners and dishonours the Profession. I think such cases as these should never pass by unnoticed, therefore, if you will afford me a small space and insert it, you will oblige NO FRIEND TO QUACKERY.

Mr. J. F. Whiskin.—The letter has been referred to the gentleman who conducts the department in question.

The following communications are in type, and will be published immediately:—On Weak Inflammation, by Mr. Barwell; A Case of Chronic Hydrocephalus, by Mr. Sedgwick; Cases of Croup, by Dr. B. W. Richardson; A Case of Hydrophobia, by Mr. Baylis.

Dr. W. C.—We are not yet aware of the precise character under which an M.D. of Edinburgh will be compelled to register under the new Act, but he may, if he pleases, register as a Physician. There is to be no such class as "General Practitioners," but only Physicians and Surgeons. By passing the examination at Apothecaries' Hall, you would be entitled to register. The Bill is published in our present Number.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Can you or any of your readers inform me upon what principle the Council of the Medico-Chirurgical Society acts in nominating the members of a new Council?

It is *not* on the principle of seniority in the Society or in the Profession; it is *not* on account of the number and value of the papers contributed to the Society's Transactions; and it is *not* on account of the general reputation or high Professional position, or Mr. George D. Pollock, elected into the Society in 1845, would not now be recommended for election in the Council before Mr. White Cooper, Mr. Prescott Hewett, Mr. Luke Holden, and Mr. Toynbee, who were elected into the Society in 1843. I am, etc. ?

ERRATUM.—In Mr. Windsor's letter in our last Number, page 198, 2nd column, line 36 from the bottom, for "*abstracting*" read "*obstructing.*"

No Friend to the Quacks—The New Medical Reform Bill contains no provisions for suppressing practice by unqualified persons. Punishments are provided for those who falsely pretend that they are on the register, but none are contemplated for those who boldly avow that they are not on the register at all. Lord Robert Grosvenor's *protégés*, the quacks, are amply protected by the new Bill; but he is not satisfied with thi protection, and demands that the Colleges should openly encourage and foster the homœopathic absurdities.

H. L.—The Guardians are compelled to pay only for cases of *successful* vaccination; and if, under the circumstances mentioned, the vaccination should *succeed*, the payment may be enforced, but not otherwise.

We are compelled, from press of matter, to postpone a great part of th letter of our Edinburgh Correspondent, and that from our Dublin Correspondent, until next week.

COMMUNICATIONS have been received from—

Dr. GEORGE KEMP, Guernsey; Mr. W. H. FLOWER; Dr. H. WEBER; STAFF-SURGEON ROBERTS, Scutari; NO FRIEND TO QUACKERY; Mr. B. TRAVERS, Jun.; Mr. J. F. WHISKIN; D. W. C.; Mr J. J. WILKINSON; Mr. H. T. STAINTON; Mr. SAUNDERS, Monaghan; Mr. WALKER, Stourbridge; Mr. W. B. KESTEVEN; M.D. Cantab.; Mr. KEEN; Mr. TOYNBEE; THE ROYAL INSTITUTION; A CONSTANT READER; Dr. S. B. BUCKNILL; CHIRURGUS; Mr. JOHN GLEN; Mr. JOHN WINDSOR; (?); Mr. R. GRIFFIN; Mr. W. B. YOUNG; Dr. HYDE SALTER; Mr. CHARLES WILLIAMS; Mr. J. C. COOKWORTHY; SPECTATOR; Mr. WILLIAMS; Mr. LAVING; THE GEOLOGICAL SOCIETY; H. L; Mr. W. H. BORHAM; Mr. E. PILKINGTON, Sunderland; Mr. H. WALKER.

APPOINTMENTS FOR THE WEEK.

MARCH.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
1. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8 p.m. Anniversary Meeting. (Instead of in the afternoon, as in former years.) MEDICAL SOCIETY OF LONDON, 8 p.m. Annual Election.
3. MONDAY.....		ROYAL INSTITUTION, 2 p.m. General Monthly Meeting. CHEMICAL SOCIETY, 2 p.m. EPIDEMIOLOGICAL SOCIETY, 8 p.m.: Nomination of Office-bearers for Ensuing Year. Subjects—Mr. W. B. Kesteven "On Concurrent Scarlet Fever and Measles."—Dr. Philip B. Ayres "On Cholera."
4. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy." LINNEAN SOCIETY, 8 p.m.
5. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. ROYAL COLLEGE OF PHYSICIANS.—*Croonian Lectures:* Dr. Owen Rees "On Calculous Disease and its Consequences." 4 p.m.	PHARMACEUTICAL SOCIETY, 8 p.m. GEOLOGICAL SOCIETY, 8 p.m.: Subjects—Mr. R. N. Rubidge—"Notes on the Geology of some parts of South Africa."—Mr. J. W. Salter "On Fossil Remains in the Cambrian Rocks of the Lougmyrd."—Mr. R. Harkness "On the Lowest Sedimentary Rocks of the South of Scotland."
6. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	ROYAL SOCIETY, 8½ p.m. ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light." ZOOLOGICAL SOCIETY, 3 p.m. PHOTOGRAPHIC SOCIETY, 8 p.m.
7. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m. ROYAL COLLEGE OF PHYSICIANS.—*Croonian Lectures:* Dr. Owen Rees "On Calculous Disease and its Consequences." 4 p.m.	WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m.: Dr. Ogle: "How can the Medical Profession assist the Officers of Health in the prosecution of their duties?" ROYAL INSTITUTION, 8½ p.m.: Sir Charles Lyell "On the Successive Changes of the Temple of Serapis." BOTANICAL SOCIETY, 8½ p.m.

ORIGINAL COMMUNICATIONS.

PRACTICAL OBSERVATIONS ON THE PROPHYLACTIC AND CURATIVE TREATMENT OF CONTINUED FEVERS.

By ROBERT HUNTER SEMPLE, M.D.
Member of the Royal College of Physicians; Physician to the Northern Dispensary.

(Continued from page 163.)

After these observations, I need scarcely remark that blood-letting is almost entirely contra-indicated in the treatment of modern fevers; and, putting the lancet wholly out of the question, even the local abstraction of blood by leeches or cupping-glasses, must be guided by the utmost caution; and must, indeed, never be allowed at all except in certain cases of serious mischief, threatening important organs. In the progress of this paper, I shall indicate the cases where blood may, with propriety, be withdrawn from certain parts of the system; but I may observe, as a general rule, that the loss of blood is borne better by cases out of an Hospital, than by those which are in one; and that when a number of fever patients are congregated together, all depletion by loss of blood must be exercised with the greatest caution, if not contra-indicated altogether, for the morbid atmosphere of such places is so much calculated to promote collapse among the patients, that all kinds of evacuation are attended with the greatest hazard.

Mercury is a remedy to which are applicable many of the remarks just made in relation to blood-letting. When I was a student, the teacher, whose precepts I still remember with gratitude, inculcated the necessity of repeated doses of calomel in the treatment of fever; and it is very probable that many Practitioners still administer this drug in the treatment of that disease. I may remark upon the extraordinary pertinacity with which some persons persist in the use of a medicine which might have been applicable under former circumstances, but which may at present be of limited utility. Unlike the great Sydenham, who conceived that diseases varied according to the epidemic constitution of the air, and that the treatment ought to be varied accordingly, there are many members of our Profession, who, regardless of the visitation of cholera, influenza, and boils, not to mention fatty degeneration of the heart, and Bright's disease of the kidneys, which may or may not be new diseases, still go on prescribing blue pills and black draughts for almost all conceivable affections, following the precepts of the famous John Abernethy, who certainly led the way to the correct treatment of surgical maladies by constitutional remedies, but who undoubtedly never intended that his practice should be slavishly followed under wholly different aspects of disease. It may be stated, generally, that mercury has no specific influence over fever, and, except in certain cases hereafter to be mentioned, its use will be better avoided.

Purgatives, which were formerly freely employed in the treatment of fever, should, under present circumstances, be used with caution, inasmuch as they tend to irritate the mucous surface of the intestines, which are already inflamed or ulcerated in certain forms of fever, and because they contribute generally to depress the powers of life, which it ought to be our duty to sustain. Although, therefore, it may be expedient at the onset, or during the course of fevers, to administer an aperient, a very gentle one should be selected, and usually one or two drachms of castor-oil will be found sufficient for the purpose.

Quinine, a remedy of undoubted efficacy in Intermittent Fevers, and in convalescence from diseases generally, has been from time to time proposed as an important therapeutic agent in the treatment of Continued Fever; and very lately considerable attention has been drawn to the abortive treatment of fever by means of quinine, by Dr. Dundas, whose observations, founded as they are upon considerable experience, and coming as they do from a Practititioner of acknowledged skill and trustworthiness, deserve, and indeed have received, very great attention. But I think it may be admitted that those who have adopted Dr. Dundas's treatment of fevers by large and often repeated doses of quinine have not met with the success which they hoped to attain. It must be observed, that the results obtained by such careful observers and sound Practitioners as Dr. Barclay and Dr. Peacock, have not corroborated the testimony afforded by Dr. Dundas of the great remedial benefit derivable from this agent. Much of this discrepancy may, no doubt, be due to differences in locality, constitution, type and period of disease, and other circumstances; but, nevertheless, I think that the results derivable from the investigations of numerous observers are unfavourable to the alleged efficacy of quinine in cutting short the duration of fevers. Still the course of observation should not be arrested, and it is to be hoped that more attempts will be made to settle this very important question; and it is much to be regretted that the great expense of quinine opposes a very considerable obstacle to the application of this remedy on the large scale, in the very full doses recommended by Dr. Dundas, in our large Hospitals. For my own part, I can only state that I have tried it in a few cases many years ago, but perceived no effect from its administration during the worst period of typhus; and indeed it is difficult to understand how large doses of this drug can be absorbed into the system when the tongue is furred, dry, brown, cracked, and glazed, and when, of course, the absorbent surface of the intestines is in a similar morbid condition. Under these circumstances, it is difficult to understand how large doses of any medicine, or of food, can be digested and carried into the system; and indeed, in the case of cholera, where the conditions are somewhat analogous, t has been shown that calomel and other drugs have passed unaltered through the alimentary canal.

Having premised these general remarks upon the treatment of fever, it is now necessary to point out the distinctive plans to be adopted in the two forms of Typhus and Typhoid Fever.

Typhus Fever is recognized in its early stage without much difficulty: there is a rapid and rather full pulse at first, a brown tongue, great thirst, and more or less delirium; the bowels are generally confined; there is a characteristic mulberry rash. The bowels should be opened with a drachm or two of castor-oil; the thirst should be allayed by toast-and water; a mixture should be prescribed containing spirits of nitric ether, solution of acetate of ammonia, and camphor mixture. If there should be great delirium, much relief will be obtained by shaving the head, and a blister should be applied to the nape of the neck. As the disease advances, the pulse, retaining its rapidity, most probably loses its fulness, and as soon as this is observed, beef-tea and wine should be administered in small quantities often repeated, and a mixture containing the carbonate of ammonia, should be substituted for, or added to, the mixture just described. If the symptoms of sinking should increase, which is very often the case, and is indicated by a feeble, fluttering, and irregular pulse, trembling of the limbs, and muttering delirium, then brandy should be administered pretty freely in addition to the wine, and strong beef-tea should be frequently given. In addition to the carbonate of ammonia, the stronger diffusible stimulants should be prescribed, as the spiritus ammoniæ aromaticus, the spiritus ætheris compositus, and a modification of the mistura spiritûs vini Gallici. It is only by a vigorous adoption of these measures that life can sometimes be saved and, indeed, it is perfectly extraordinary how, under circumstances apparently desperate, the patient has been restored by an unsparing use of these and similar stimulants.

The use of opium in typhus fever must not be passed over without a remark upon its great value in certain stages of this disease. In the early period, this drug would be injurious; in the latter it is useless, but where there is great restlessness and irritability, together with great weakness, the use of opium is invaluable; it quiets the patient, procures him sleep, and raises the pulse. The usual form of administration of this medicine at the London Fever Hospital, is the tincture, given in doses of ten minims, and repeated if restlessness is not relieved.

In Typhoid Fever the symptoms are by no means always so well-marked as in Typhus, and indeed the early stages of this disease are recognized with difficulty, and the malady steals on in a most insidious manner. In other cases, however, the

symptoms of fever are sufficiently evident: there are, the hot head, the greater or less delirium, the thirst, the full and rapid pulse. In this fever there is less tendeney to delirium than in typhus, the progress of the disease is not so rapid, the danger from collapse not so imminent, the abdominal symptoms much more evident. In the early days of this disease, the same treatment may be adopted as is recommended in typhus; the constipation, which is often a marked symptom, is to be overcome by small doses of castor-oil, and a mixture may be given containing solution of acetate of ammonia and camphor mixture. It must be particularly remembered that, in this disease, there are inflammation and ulceration of Peyer's glands, and that the external indications of this affection are to be found in the rose-coloured spots scattered over the chest and abdomen. Our attention must, therefore, be especially directed to the detection and repression of abdominal disease. The abdomen is often hot and painful on pressure, and there is sometimes obstinate constipation, and frequently diarrhœa; the latter symptom being often severe, and generally very alarming. In combating these abdominal symptoms, a cautious employment of depletion, and the use of alteratives, will generally be found of great service. Notwithstanding what I have written upon the danger of blood-letting, it will often be advantageous to apply some leeches over the abdomen, when there are great heat and pain over that region; but it must be especially noted, that this measure is far better borne in private practice, or in establishments for the general treatment of disease, than in Fever Hospitals, where, as formerly remarked, depletion is attended with danger. Besides the application of leeches, great comfort is afforded to the patient by placing a large warm poultice over the whole abdomen, and various forms of counter-irritation are often attended with beneficial effects, the principal of them being the use of blisters, or the acetum cantharidis, and epithems of warm turpentine. The internal remedies to be employed, for the purpose of controlling the abdominal disease, are small and repeated doses of mercury; again adverting to the fact, that this mineral must be used with great caution, and is less available in hospital, than in private, practice. The administration of two or three grains of hydrargyrum c. cretâ, with as many of the pulvis ipecacuanhæ compositus, every six hours, is a useful remedy for checking the inflammation of the intestinal glands, and regulating the secretions. But it often happens that diarrhœa, which is a concomitant of this disease, sets in with great severity, and by its drain upon the system, threatens to carry away the patient. Under these circumstances, the chalk mixture will often be found efficacious, and tincture of catechu or of kino, with a few drops of tincture of opium may be added, or the pulvis kino compositus, or the pulvis cretæ compositus c. opio may be given. But, perhaps, the most efficient remedy in this state of the disease is the acetate of lead, and it may either be given internally in grain doses, or (what is a very valuable mode of administration) may be injected into the rectum as an enema, with solution of starch and some tincture of opium. By this proceeding, which is very frequently adopted at the Fever Hospital, the most serious cases of diarrhœa are often relieved, and the lives of the patients are saved.

(To be continued.)

ON THE DIAGNOSIS OF FIBRINOUS CONCRETIONS IN THE HEART, IN CERTAIN CASES OF INFLAMMATORY CROUP.

By BENJAMIN W. RICHARDSON, M.D.,
Physician to the Royal Infirmary for Diseases of the Chest, and Lecturer on Pathology at the Grosvenor-place School of Medicine.

In a paper published in the *Medical Times and Gazette* on Jan. 26th of the present year, Mr. Henry Smith has referred to the treatment of croup by tracheotomy, and in so doing has given a colouring to certain views and statements of mine, which I take the earliest opportunity to remove. Mr. Smith observes "that among all the Fellows of the Medical Society of London his arguments regarding the performance of tracheotomy in croup have been well received, except by one Fellow (meaning myself), who has ridiculed the idea of the operation, and who has been trying to persuade the Professional world that in cases of obstructed respiration death is owing to a fibrinous deposit in the heart."

It is possible that Mr. Smith has made these remarks without any definite recollection of the real facts and opinions which have been offered by me on these subjects. Whether this be the fact or not, he has made an entire misstatement; for, in the first place, I have never ridiculed the performance of the operation of tracheotomy in croup: and, secondly, instead of saying that in cases of obstructed respiration fibrinous clots are the cause of death, I have always held that free respiration is necessary to insure the formation of fibrine; that excess of fibrine, and its subsequent deposition in inflammatory cases, are due, in great part, to quickened respiration; and that in cases where death takes place from arrest of respiration, either slowly or suddenly produced, the blood is found less disposed to coagulate than in most other instances.

At the same time, with regard to croup, I take a decided and strong position, which has peculiar bearings; first, on diagnosis, and, secondly, on treatment.

My views are these:—1. That croup, like all other hyperinotic diseases, commences first as a general disorder. That, in the outset of the general symptoms, the respiration is quickened, the combustion of the body is increased, and the fibrinous constituent of the blood is made in proportions abnormally excessive.

2. In regard to the local mischief, I contend that this, in inflammatory croup, is a secondary effect, like all other local manifestations.

3. In croup of the inflammatory type death may and does occur, either from an obstruction in the heart (syncope), arising from the right cavities of that organ being the seat of a fibrinous deposit, or from obstruction in the windpipe (apnœa), arising from over-secretion; or, lastly, from a combination of these causes, as happened in a case related to the Medical Society by Dr. Hawksley, where the local mischief produced death, while yet the fibrinous concretion was becoming developed, and before it had materially impeded the circulation.

Holding, then, these views on the causes of death in croup, I am in no way prepared to deny the usefulness of tracheotomy in some forms of this disorder, nor have I ever denied it; but I maintain that there are certain cases in which the death is clearly by syncope, the result of fibrinous deposition, and that in these cases the operation is simply absurd. I would further remark, that Mr. Smith has related cases where the symptoms, as he describes them, were those of syncope from this cause, and that the death in those cases was removed altogether from the operation—being death by syncope, not by apnœa.

The symptoms which mark the cases of croup about to terminate in syncope, the result of cardiac obstruction, are distinct from those arising from obstruction in the air-passages.

The differences are these:—In the cases of syncope from arrested circulation, the dyspnœa is not caused by obstruction in the larynx, but by the peculiar anxiety and gasping desire to breathe incident to the want of blood in the pulmonic circuit. In this case, therefore, if the stethoscope be carried from the upper part of the windpipe downwards, and over the whole chest, the respiratory murmur is audible, and, it may be, clear throughout, so that the observer is prepared to say, there is here no such deficiency of respiration as will account for the severity of the symptoms. Again, the most common physical pulmonic sign in these cases is that of emphysema, which is often accompanied, in very young children, by a peculiar prominence in the anterior part of the chest. This emphysema, when present, is strictly diagnostic of fibrinous obstruction, and is altogether subversive of the idea that the cause of the symptoms is an obstruction in the windpipe.

In addition, there are in these cases the definite signs which mark the cardiac obstruction. The body is cold and generally pale, almost marbly, but mostly so at the extreme parts. The lips are slightly blue; the cheeks are occasionally the same. The jugular veins are distended. The pulse is irregular. The body is painfully restless. The heart-beats are feeble, quick, and irregular; the sounds muffled, with a bruit in some cases. No real convulsions of the limbs occur, but intense anxiety and constant movement.

In those cases, on the other hand, where the death is really due to apnœa,—the effect of obstruction in the air-passages,—

the symptoms are widely different. In these cases there is some point in the respiratory canal where an obstruction can be detected. The lungs show signs of congestion, but never of emphysema. The difficulty of respiration arises from an absolute inability to fill the chest. From the fact of the obstruction being in the respiratory circuit, such blood as passes through it is not arterialized, and the surface of the body instead of being pale, as in cases of cardiac obstruction, is generally of a dark hue, with the veins more decidedly turgid. The muscles are not simply restless, but actually convulsed violently, the patient being unconscious of the fact; the heart-sounds are clear, and its motions, though feeble, are rarely tumultuous.

Lastly, the breathing is the first to stop at death, while, in the former case, the heart takes the precedence in this respect.

These broad and definite diagnostic signs can never be mistaken, except in instances where there is a clot in the heart coincidently with obstruction in the windpipe. Here some difficulty may arise, but a careful inquiry into all the facts will indicate the existence of the complication.

The points of practice which are to be gathered from a clear diagnosis in cases of this character are numerous, but in none so important as in settling the question whether tracheotomy should or should not be performed.

If in any given case the Practitioner shall find the symptoms referable purely to obstruction in the trachea or larynx, and the circulation unembarrassed, he will operate with good chance of success, granting that the point of obstruction is not too low, and that no further inflammation succeeds. If, on the contrary, he should diagnose the symptoms of cardiac obstruction, whether or not complicated with constriction in the windpipe, the operation is worse than useless; it will, of necessity, fail, because there are other fatal influences at work which the knife cannot affect.

The success which has attended the operation of tracheotomy, as performed by M. Trousseau, is not so remarkable as some late writers have imagined. Setting aside the supposition that some of these cases were those of spasmodic croup, it seems to me that, if any man should make up his mind to operate moderately early in every case of croup, he would meet with some success, because he would be sure to hit upon certain cases in which the danger arises mainly from arrested respiration. But the principle of indiscriminate operation is always bad practice in the end; and in croup it is most unnecessary, since the symptoms which indicate that the operation cannot possibly succeed are quite clear to any one who can simply read off pathological phenomena to the extent of being able to say whether, in failing states of the body, the cause of failure is located in the circulatory or in the respiratory system.

12, Hinde-street, Manchester-square, Feb., 1856.

ON STRONG AND WEAK INFLAMMATIONS.

By RICHARD BARWELL, F.R.C.S.
Assistant-Surgeon to the Charing-cross Hospital.

(Continued from page 208.)

The two forms of inflammatory ulceration, (the one approaching erysypelas, the other of a much stronger sort,) which were mentioned in my last paper on the subject, do not occur casually, do not assume by accident, as it were, either one form or the other; but are governed by laws, certain and invariable; the two species cannot even be coexistent in the same individual, for each requires a different state of constitution, a peculiar condition of circulatory and nervous power, such as is inconsistent with the other.

Indeed, incompatibility between these inflammations is not strictly confined to individuals, but extends also more or less over seasons and localities. There, are as is well known, persons of powerful constitution and strong health, in whom a wound will heal rapidly and firmly, giving the patient extremely little trouble, and his Surgeon no anxiety; while there are others, in whom an injury of even less extent, instead of healing, increases, causing illness, danger, and grave anxiety: but at times, even the strong man cannot bear up so well against his accident; it makes him feverish, the wound does not heal, and he is surprised to find what appeared so slight an evil should vex him so long. There is, in fact, at certain periods, a state of atmosphere, affecting not only inflammations, but also the development and progress of all diseases, which, if examined into fully and thoroughly, might perhaps lead us to the appreciation of some pathologic conditions, with which at present we are but imperfectly acquainted. Among all the diseases enumerated as the cause of death in the Registrar-General's return, that class termed zymotic is by far the most interesting, not only on account of the amount of its victims, killing, as it does, daily nearly one-third of the total number dying in the Metropolis; but chiefly on account of the difficulty, or impossibility, of fathoming the laws which govern them. All the other diseases mentioned in those tables, appear to arise from some original or acquired bodily defect, and the aggregate of suffering caused by them varies but little, and then generally from some easily explainable condition, as for example, that in winter more people are attacked with bronchitis than in summer, etc; but the zymotic class stands in a totally different light; the causes of their variation are unknown, and they fluctuate immensely, and with them varies more or less the condition of a great many of the diseases that occur at the same time. Even the Registrar's returns, accurate to a marvel as far as they go, are quite inadequate to express many of the changes we have hinted at, as for instance the variations in the percental mortality of diseases, what percentage, namely, of the whole number attacked with any malady succumb? and it is in this particular relation, that the influence of the zymosis appears to me most marked. Thus why do we find at a certain season when neuralgias and diarrhœas were very prevalent, that small-pox was enormously destructive, being so frequently diffluent, and that scarlatina was often malignant? Why, before the outbreak of cholera in 1849, was influenza so prevalent; and why for the four previous years, did deaths from all zymotic diseases increase to more than double? but chiefly would I ask, because it appears to me a clue to the above queries; why erysipelas, diffuse inflammations, carbuncles, etc., are then present to such a degree? or, in other words, is not the fact that inflammations assume a weaker and weaker form; that the state of constitution gets lower and lower; that thread which we should follow to arrive at the simplest and most evident law of zymosis.

Of all general or blood-diseases, cholera appears to me the very lowest form which, during our own recollection, has occurred in England. It requires for its development a peculiar state of atmosphere, and perhaps certain electrical conditions; and, although the bad drainage and river-sewage of London has great power in aiding its development, they are neither necessary to the production of the disease, nor are they of themselves able to produce it. It is preceded in all countries by a deterioration in the public health: in Hamburg, Holland, and St. Petersburg, the usual intermittents of those places were greatly increased, both in violence and extent. In England, and St. Petersburg also, influenza was its forerunner; in London, a great increase in typhus and malignancy of scarlatina. In fact, wherever the scourge appears, we find that the diseases preceding and accompanying it assume a lower and weaker form.

It is still affirmed, that the first cholera epidemic in England wrought a great change in the character of all diseases throughout the country; and there is truth, though wrongly stated, in the assertion. The fact is, that some atmospheric and perhaps tellurian influence was effecting this change gradually, almost imperceptibly, till the new and terrible disease arose; attention was riveted to it, and the alteration in the general character of diseases was put down as one of its effects. I have frequently heard an old Practitioner say that before that period he had never feared for a case of scarlatina, and I can hardly believe that the lancet could then be so extensively used, unless there were more reason for it than we should find for its employment in the present state of disease. We cannot refer to statistic tables at that time for an account of what were then the most fatal diseases; but the Registrar's reports previous to 1849 and to 1854 give us accounts which, when compared with the recollections of Practitioners prior to 1836, appear to indicate a precisely similar condition. Moreover, if we leave diseases actually mortal, and refer to our experience and observation for evidence of the general constitutional state, we shall all remember most extensive evidence of low diseases and of want of power. All Surgeons seeing Hospital or Dispensary patients will have been struck with the immense number of cases of boils, carbuncles, diffuse inflammations, etc.; while within

the wards all operations were, if possible, postponed, because the condition of the patients was such as to lead the Surgeon rather to expect extensive suppuration and sloughing than adhesion; and this not as an isolated instance from overcrowding or bad ventilation, but an influence more widely spread than any we are yet acquainted with in pathology, particularly as it not only appeared to affect the animal but the vegetable creation also. In 1847 was the first appearance of the potato disease; it spread over almost every known country, alarmed all, as though it were the death of that vegetable on which many of our fellow-creatures depended; in 1852 it had almost disappeared. Compare these dates with the mortality of zymotic diseases. They were in 1847 approaching double their number of two years previously; in 1848 they were still increased, in 1849 at their highest rate of mortality, and then decreased again. In 1853 and 1854 the vine disease spread as widely (taking into account the different extent of the growth) as the potato disease, and bears the same species of comparison with the mortality tables.

Thus, it is not so much by the presence or absence of any one malady that we can judge of an atmospheric condition, or of its influence upon health, as by the form which nearly all diseases are assuming at the particular time; and we constantly see phases in the same malady at different periods and different places, according to the condition of air and soil.

Thus the state of body, which causes inflammations to assume the weak form, may be produced by an atmosphere impregnated with the products of animal or vegetable decay, by over-fatigue, bodily or mental, by insufficient or a bad form of nourishment, and by other causes. The various circumstances most likely to produce all these conditions are most readily heaped together in large towns, and in those parts thereof which are closely inhabited; but the tendency to weak inflammations and low forms of disease is also produced by temporary, and more or less transitory, atmospheric influences, analogous to epidemia whose conditions we cannot fathom, but whose effects we can trace; and, when both the local and epidemial influences converge, the effect, of course, must be doubly strong. Thus the constant, or nearly constant, presence of weak inflammations and low forms of disease in any one spot, either a house or a set of houses, indicates one or more of the local evils above mentioned; the prevalence thereto spreading over a town or a country shows the existence of an epidemial influence, and should, perhaps, warn us that, if it continue, the lowest form of diseases will occur as an epidemic.

We may, then, look upon this condition of body as an effect of atmospheric poisoning; it is transitory, generally yielding rapidly to improved air and tonics; but a slower action of the same causes, a less acute form of poisoning, produces another bodily state, namely, some of the worst species of struma. I cannot but think that this disease has two very different forms, produced by as different conditions. In high-bred, luxurious classes, scrofula is often a handsome disease. All are familiar with the clear, brilliant complexion, the bright large-pupiled eye, the soft skin, and easily flushing cheek, so often attributes of the beauty verging on consumption: in the poor this is a hideous malady; in the close courts and alleys we see children with blear eyes, knees bent frightfully inwards, enlarged distorted bones, frequently approaching, or actually affected with, caries or necrosis, and with other signs equally terrible, that we find but rarely with the rich. The two may be the same disease, but are brought about by quite different means, and, at present, we have only to do with that form which seems connected with, if not produced by, much the same local evils as cause the tendency to weak inflammations, working perhaps in a less concentrated form and slower manner, from parents to children and grandchildren; yet it must be distinctly understood, that this slower operation does not by any means preclude or prevent the other more rapid form of atmospheric poisoning; on the contrary, when any new cause, the presence of epidemia, or an additional increment of foulness, renders the habitation still more unhealthy,—the weak, scrofulous poor feel its effects first, and suffer most.

There are in London many close courts, where the sun finds its way between the dank, green roofs but for an hour or two in the morning or afternoon, where, protected from the wind on all sides by tall buildings, and by its own narrowness, the air stagnates and reeks; where the houses are built below the level of the ill-paved ground, wet with refuse thrown out of the dwellings, that the impurities may soak back through the earth into the very chambers. These lower rooms are the nurseries of hideous struma, and its appropriate dwelling; darkness, dampness, dirt, foul air, are here all united to foster the complaint. The upper stories get better and better as they ascend, but very bad indeed is the highest. In these alleys children swarm, the court sometimes seems so full of them, and of women, that we wonder how they all find place in those small-windowed houses; but not merely will they do so; the husbands and fathers now out to work, a lot of boys old enough to have some employment, will all come, and gathering into the little rooms, a whole large family in each, will shut themselves close in till morning.

It is such places which supply our Hospitals with constant cases of typhus fever and of small-pox, in such courts cholera first enters and last quits. We find here, too, all the conditions united, which we have said produce that condition of body tending to weak inflammations; we find also the worst forms of struma.

The next favourite habitat of low diseases is the marsh, the large surface of stagnant water filled with vegetable decay, which the sun suspends in vapour and makes the air unhealthy. In a long drought with hot sunshine, and without wind, such places become almost deadly to the unacclimatized. In the Vallois of Switzerland all such conditions unite. The marshy bottom of the glen is surrounded by high mountains, ensuring an almost perpetual calm. In summer the glen is filled with a warm unmovable mist, that renders the nights even close. Here goîtres and the most revolting deformities are rife. Struma has set its seal very deeply on the people. The place, like a London court, wants ventilation; but the foulness arises from vegetable decay, not animal, and the marsh fever and intermittents differ from typhus fever, as much as the products of decomposition of either organism; but the essential character of all disease in both places is weak, a character we always find when the blood draws in with its oxygen the depressing poison of decayed organism, or when that fluid is not properly nourished; or, in other words, if the strength of the body be so reduced, that very little increase in the action of a part is still sufficient to render that action more than the power.

Thus we must return to our original definition, but this time not confining it to weak inflammation only, but allowing it to extend to all diseases, which show a weak or low type, the characteristics of which are action exceeding power; and this not because the former is very high, but because the latter is very low. Strength of body, like strength of mind, shows itself in the power of control; and, therefore, in a strong, unharmed constitution, we never find an action go far beyond the cause which called it forth; but in a weak one on the contrary, a slight injury often sets up an unproportional amount of inflammation. When, therefore, we find this to be the case, it is not right to attempt to reduce action by bleeding or purging, which abstract the power whereon we must depend; a right comprehension and a rapid perception of the case would lead us rather to soothe, and at the same time to endeavour to husband or increase the strength of our patient; and the notion that inflammation is always to be treated with antiphlogistics, we shall find to be quite false, in spite of the term being Greek.

22, Old Burlington-street, August 4, 1855.

Deaths in Public Institutions for the Week ending March 1:—

	Males.	Females.	Total.
Workhouses	43	57	100
Prisons	..	..	..
Military and Naval Asylums ..	7	..	7
General Hospitals	28	16	44
Hospitals for Special Diseases ..	13	4	17
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	8	..	8
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	4	2	6
Total	104	79	183

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASE OF THE SUPRA-RENAL CAPSULES.

(Continued from page 189.)

BRONZING OF THE SKIN—CACHEXIA AND DEBILITY—DEATH.

(Communicated by Dr. STOCKER.)

A Physician, aged 56, a tall, fair-complexioned, delicate man was seen by Dr. Addison, in the summer of 1855, in consultation with Dr. Stocker. The patient had for several years lived in the country, and, with the exception of occasionally suffering from severe attacks of dyspepsia, had enjoyed a fair share of health, though he was always obliged to be extremely careful in his diet, and unable to take exercise immediately after meals, owing to the tendency he had to suffer from diarrhœa, which came on under such circumstances. The present illness commenced in the early part of the year, with symptoms of irritability of the stomach, indicated by nausea, and an uneasy sensation at the epigastrium, and a feeling of general *malaise*, with great debility, without being able to specify any other definite ailment, except a constant accumulation of viscid, frothy mucus around the fauces. During these attacks, which lasted for three or four days, the skin would become dry and hot, the tongue being coated with a white, creamy fur, and the pulse, which was usually soft and thready, would become more rapid and irritable. The heart and lungs were healthy, as indicated by auscultation and percussion, and the urine was normal. These symptoms were usually relieved by effervescing saline medicine, with an occasional purgative, as there was a liability to constipation. Indian hemp and the application of mustard poultices over the scrobiculus-cordis were also found beneficial in relieving the nausea. These symptoms continued much the same till the summer, the patient, however, becoming very much emaciated, when the debility increased, and any exertion on his part would bring on an attack within a short time. At this period, there was noticed a light-brown discoloration about the skin of the neck, where the cravat covered it. This is important, as the dorsal surface of the hand had been previously noticed to have been bronzed; but was attributed by the patient (a most intelligent person) to the effect of the sun. On examining the body carefully, the surface of the abdomen, at the lower part, was covered with patches of a dark brown colour, interspersed with patches of a lighter hue, in some parts the skin being even of a natural colour—the discoloration was especially noticeable over the nates and upper part of the thighs. There were also observable very slight patches under the symphysis of the lower jaw, and at the angle of the mouth, on the left side; and with these exceptions, the mucous membrane of the lip and the surface of the face were of a normal colour. Dr. Stocker, considering it as a case of diseased supra-renal capsules, and feeling that Dr. Addison would be interested in it, asked him to see the patient, when he confirmed the opinion, and very confidently predicted his speedy dissolution. From this time, the patient grew gradually weaker: the anæmia, general flabbiness of the muscles, and wasting, rapidly increased, and he died without any other evidence of organic disease. No post-mortem was allowed.

ST. BARTHOLOMEW'S HOSPITAL.

DELIRIUM TREMENS—DISCOLORATION OF SKIN—DEATH—ABSCESS IN THE LIVER AND IN BOTH SUPRA-RENAL BODIES.

(Case under the care of Dr. FARRE.)

John D. Burrowes, aged 37, a licensed victualler of intemperate habits, was admitted, on April 1, suffering from all the symptoms of delirium tremens. He was a stout, and moderately fat, man. It appeared that about a year ago he had suffered from pain in the lumbar region, which, however, had passed off after ordinary treatment. He had latterly been subjected to much anxiety in business matters, and had drunk to unusual excess. For two weeks past it was believed he had not been sober. The usual treatment was adopted, and for a few days there appeared to be some signs of amendment, and sleep was procured. Subsequently, however, he relapsed, and again became violently delirious. On the 11th there was pain complained of in the shoulder-joints, and some swelling was noticed, and about the same time severe rigors occurred. After this he sank into a low typhoid state, with restless, muttering delirium. In spite of the free use of stimuli, etc., death took place on the 14th.

The *autopsy* was conducted by Mr. G. W. Callender, the Medical Registrar of the Hospital, to whose courtesy we are indebted for the following account:—

The corpse was that of a well-nourished man. The skin generally was noticed to have a peculiar yellowish brown tinge, not unlike some states of jaundice. The discoloration was diffused, and no mottling was observed. In the right lobe of the liver was found a circumscribed abscess, capable of containing an orange, and filled with flaky pus. It was surrounded by a lymph wall, which protected the adjacent structure of the organ. The tissue of the liver itself was coarse. The kidneys were congested and vascular, but showed no deposit. A careful inspection of all the viscera was made, and, excepting in those mentioned and in the supra-renal bodies no important morbid changes were discovered. No evidences of inflammation were found in any of the joints.

The supra-renal capsules.—While removing the left of these organs it tore, and some well-formed pus escaped from its interior. It was found to consist of a collection of matter, surrounded by a thin layer of the healthy structure of the organ. The walls of the abscess were much softened, and loaded with fat globules. The lining of the cavity consisted of a soft brown pultaceous material, which adhered but slightly, and could easily be scraped away. The suppuration appeared to have taken place in the natural cavity of the organ, and, excepting the thin layer of structure surrounding it, the latter was totally destroyed. The right capsule was in a precisely similar condition to the left in every respect.

Presuming that, in this instance, the discoloration of the skin was consequent on the disease of the supra-renal bodies, and not on ordinary jaundice, the case becomes of much interest in relation to some others in the present series. In the first place it must be observed, that the disease was evidently an acute inflammation, and therefore susceptible, had circumstances favoured it, of arrest by treatment. In the case of M. A. T., recorded at page 189, the patient recovered from a condition in which the skin had been discoloured much to the same degree as in the present. Thus, then, the two appear to present us 1st, with an example of acute, and yet curable, condition of the suspected organs; and 2nd, one in which, after a sudden accession of symptoms, and in which therefore acute disease was fairly presumable, recovery did actually take place. Another point of interest in Dr. Farre's case is, the question as to its true pathology. Were the abscesses pyæmic? We have in it suppuration occurring in three distinct viscera, and in connexion with severe rigors, pain in the joints, and a typhoid condition. Still it must be noticed, that no pus or trace of inflammation was found after death in any joint, nor had any wound been known to precede the fatal illness. The delirium was, moreover, violent, and of a form not often met with in pyæmic states. On the whole, perhaps, the supposition is the more probable, that the suppurations were the result of ordinary inflammation in a man whose blood had long been loaded with alcohol.

ANALYSIS OF THE SERIES—COMMENTS, ETC.

With the above case we conclude the evidence which is at present in our possession on this subject. In so doing, we cannot but thank, in the name of the Profession, the many able observers whose zeal in Medical science has enabled us to bring together such an important collection of facts. The better to educe from the Series the conclusions which it appears to warrant, we shall now tabulate the cases, and include in the table the whole of those published by Dr. Addison in the work already so often referred to, as well as two which have recently been recorded by Dr. Budd, of Bristol, in the *Association Journal*. The following list comprises, therefore, as far as our knowledge extends, all the evidence at present in existence in reference to the matter under discussion.

No.	Reference.	Sex.	Age.	Occupation, etc.	Previous Health, etc.	First Symptoms.	Degree of Bronzing.
1	Dr. Addison's Work, page 9	M.	32	Baker.	No history given, excepting that the skin was white when in health.	A troublesome cough, followed very shortly by debility and bronzing of skin.	Colour of a mulatto; scrotum and penis darkest. (See Plate I.)
2	Dr. Addison's Work, page 12	M.	35	Tidewaiter; married; exposed to weather, and often living on salt provisions.	Rheumatism 8 years ago; of bilious temperament but generally in good health.	An acute illness, with vomiting, constipation, headache, and delirium. Much debility was left by this, and the bronzing of the skin soon followed.	Dark olive brown; pigmentary deposits in lining of lips. (See Plate II.)
	Dr. Addison's Work, page 15	M.	26	Carpenter; married; intemperate.	Very good until three months before the change in colour was noticed.	Pain in the back and right leg, followed by debility, wasting, and attacks of giddiness.	Dark olive brown, deepened in patches. (See Plate III.)
4	Dr. Addison's Work, page 19	M.	22	Stonemason.	No history. He died the day after admission into Hospital.	Liability to pain in stomach, and vomiting; tic douloureux.	Face, axillæ, and hands, of a dingy bronzed colour.
5	Dr. Addison's Work, page 23, from Dr. Bright's Reports.	F.	Adult	Not stated.	No history.	No history.	"Complexion very dark."
6	Dr. Addison's Work, page 25	M.	—	A barrister of middle age.	No history.	No history.	Surface generally dark and dingy. Face, neck, and arms covered with patches of deep chestnut-brown. Patches of white skin interspersed. (Plate XI.)
7	Dr. Addison's Work, page 30	F.	60	Not stated.	No history. The cancer of the S. R. C. was secondary to cancer of the breast.	Cancer of the breast.	The colour of the skin of the arms, chest, and face was of a peculiar light-brown, swarthy hue.
8	Dr. Addison's Work, page 32	F.	53	A servant; single.	Always thin, but of good health.	An eruption on the skin four months before, which being cured, stomach symptoms began.	Skin generally very dark, axillæ and areola of umbilicus remarkably dark. Patches darker than surrounding skin. Plates IX. & X.
9	Dr. Addison's Work, page 35	M.	53	Sailor; married; sober.	Very good; a muscular, strong-built man.	About two months before admission began to lose appetite and feel generally unwell.	The face of yellow bronzed tint, and grew darker while under observation. (See Plate VI.)
10	Dr. Addison's Work, page 33	F.	28	Not stated.	Died of cancer of uterus; the disease of S. R. C. being secondary.	Those of cancer of the uterus.	"A peculiar dingy appearance."
11	Dr. Addison's Work, page 39	M.	Adult	Not stated.	Died of cancer of lungs, etc.	Those of cancer in the thorax.	"The patient's face presented a dingy hue." Freckles about the face and brown discoloration at root of nose and angles of mouth.
12	*Medical Times and Gazette*, Dec. 15, 1855, p. 593. (Dr. Burrows.)	M.	24	Hawker; single.	Had lumbar abscess in childhood.	Pain across the back, followed by emaciation and bronzing of skin.	Of a dark copper-bronzed tint generally; patches of lighter skin on chest and belly; skin of penis and scrotum almost black.
13	*Med. Times and Gazette*, Jan. 19, 1856, page 60 (Dr. Gull).	M.	24	Carpenter; temperate.	Robust.	Debility; breathlessness on exertion; nausea; "biliousness."	Skin generally of a sallow olive brown. The dark colour most marked about the knees; inside of lips mottled with black pigmentary deposit.
14	*Med. Times and Gazette*, Jan. 19, 1856, page 62 (Mr. Bakewell)	M.	28	Labourer.	Not known.	Not known.	Skin generally of deep brown or bronzed appearance, the tint being darkest over the thighs.
15	*Med. Times and Gazette*, Feb. 20. page 189, (Dr. Thompson, Mr. Sibley.)	M.	20	Baker; sober.	Good.	Bronzing of the skin.	Skin generally of a peculiar, dark, dirty-brown colour.
16	*Med. Times and Gazette*, Feb. 23, 1856, page 190 (Dr. Rowe).	M.	20	Not stated.	Delicate.	Delicate health, and bronzing of skin.	Skin generally brown, with some darker spots.
17	*Med. Times and Gazette*, Mar. 8, 1856, page 233 (Dr. Farre).	M.	37	A publican; intemperate	A year before had suffered from pain in the lumbar region, which subsided under simple measures.	He was admitted for delirium tremens.	Skin generally of a peculiar yellowish brown.

General Symptoms, Complications, etc.	Whole Duration of Disease.	Mode of Death.	Autopsy.	Remarks.
Excessive weakness; some emaciation; of puerile demeanour; urino healthy; pain in left lumbar region; cough; sense of soreness about epigastrium.	3 years.	Acute pericarditis and pneumonia.	S. R. C. both as hard as stones, as large as eggs, and quite destroyed. Evidences of recent pericarditis and pnoumonia; no tubercle; no other visceral disease.	A very well marked case; no chronic disease found at the autopsy excepting in the S. R. C.
Pinched, anxious expression; tendency to vomiting; pulse of usual frequency, but extremely feeble; liable to occasions of alarming depression; constipation of bowels; tenderness at epigastrium; numbness of fingers, legs, and tip of tongue occurred early, but passed off.	6 months.	Not stated	S. R. C. both contained compact fibrinous concretions. Inflamed gastric mucous membrane; no tubercle; no other visceral disease.	The deposits in the S. R. C. resembled tubercle, but there was no tubercle in other organs.
Thin, pale, and very feeble; liable to fainting on rising from bed; sickness and hiccough; pain in back; partial loss of consciousness at times: *angular curvature of spine; leucocythemia.*	7 months.	Gradually sank into a torpid, or typhoid, state.	S. R. C. each completely destroyed and converted into a mass of strumous deposit; psoas abscess, and caries of lumbar vertebræ; tubercle in lungs; spleen rather large.	The blood was examined both before and after death, and contained a large excess of white corpuscles.
Sickness, vomiting, and pain in stomach; great debility, and some emaciation. The prostration preceding death was so peculiar as to suggest that some poison had been taken.	Several months.	Died from collapse, without apparent cause.	S. R. C. wasted and destroyed, weighing together only 49 grains. No other important disease.	The disease of the S. R. C. was an atrophy, apparently consequent on inflammation.
Extreme debility; bilious vomiting; emaciation considerable; abscess in the breast, and swelling of the right parotid. "There was no indication but to support her strength."—Dr. Bright.	Not stated.	Gradually sank; before death became drowsy, had pain in forehead, and was liable to "wander" occasionally.	"The only marked disease was in the S. R. C., both of which were enlarged, lobulated, and the seat of morbid deposits, apparently of scrofulous character." They were four times the natural size; the left had suppurated.	The account of this case was recorded by Dr. Bright long before any suspicion was entertained as to the importance of disease of the S. R. C.
Emaciated, but not to an extreme degree; great anæmia; extreme languor; stomach exceedingly irritable, and vomiting urgent and distressing; pulse of good size, but exquisitely soft and compressible.	1 year.	"The patient speedily sank." No details given.	The S. R. C. both greatly enlarged, of irregular surface, & much indurated; natural structure lost; microscope could find no nucleated cells; no important disease of other organs.	In this case the vomiting had been so urgent that the idea of malignant disease of the stomach had been suggested. .. ..
No history. The woman died of ulcerated cancer of the breast, and the diagnosis of diseased S. R. C. was only formed when, in the post-mortem theatre, the bronzing of the skin was first noticed.	Not stated.	Not stated.	"Both S. R. C. contained a considerable amount of cancerous deposit, invading their entire structure."—Dr. Lloyd.	
Emaciated and very feeble; much irritability of stomach.	4 months.	Died "of exhaustion" three days after admission.	Cancer of the pylorus; left S. R. C. destroyed by cancer.	In this case the extent of change of colour in skin was proportioned to that of the disease of S. R. C., one of them being yet sound.
Sensation of sickness, but no actual vomiting; complained only of weakness and loss of appetite; rigors every five or six hours; no pain; pulse 80, rather feeble; bowels irritable.	3 months.	He became gradually weaker and weaker, and so died.	Tubercular deposit was found in one S. R. C.; tubercular matter was also in the spleen, and the kidneys were degenerate; lungs not examined: deposit of black pigment in omentum, mesentery, and cellular tissue of abdomen.	In this case only one S. R. C. was disorganized, and the degree of bronzing appears to have been only proportionate.
Until the body was in the post-mortem theatre, the discoloration of the skin was not noticed; it was then remarked, and disease of the S. R. C. foretold. No history of symptoms had been preserved.	Not stated.	Died of exhaustion from cancer.	The right S. R. C. healthy; the vein emerging from the left was obstructed by a malignant tubercle, and the organ itself occupied by a recent extravasation of blood, its structure being otherwise healthy.	In this case the degree of bronzing was but slight, the disease affecting but one capsule, and being of but recent occurrence.
No history preserved, the nature of the disease not having been suspected during life.	Not stated.	Died of cancer.	One S. R. C. entirely disorganized by cancer, the other healthy.	In this case but one capsule was affected, and the bronzing was proportionately slight. A note as to the discoloration of skin had been taken during life, and without any suspicion of diseased S. R. C.
Irritability of stomach, with vomiting; pain across the back; great debility; emaciation; partial loss of appetite; urine natural.	8 months.	Died from exhaustion consequent on the action of an aperient dose.	Both S. R. C. contained pus, and some concrete bodies resembling hardened tubercle; there was no active disease of the vertebræ, nor any important lesion of other viscera.	In this case the chain of morbid phenomena was very complete.
Nausea; vomiting; great *malaise* and exhaustion; emaciation; urine healthy; blood loaded with white corpuscles.	5 months.	Died rather suddenly, from exhaustion.	Both S. R. C. atrophied and destroyed, the left contained cysts, the right some solid concretions; no other organs examined.	.. ..
He was known to have been for some weeks in a low weak state; no further history; not materially emaciated.	Unknown.	Died from the exhaustion consequent on a short journey.	Both S. R. C. completely atrophied, and containing calcareous concretions; emphysema of the lungs, and fatty degeneration of the heart.	.. ..
Became suddenly languid, then sank into collapse, and died after a three days' illness; no rigors had preceded it; his friends had for six weeks noticed the change in tint of the skin; but there had been no other symptom.	6 weeks.	Died in collapse.	Each S. R. C. enlarged to the size of half a kidney; their structure was quite destroyed, being converted into a firm tubercular-like material, and in parts softened down.	This appears to have been idiopathic disease of the S. R. C.; no tubercle was found in other organs.
Had also disease of the knee-joint; general health rather improved, until within three days of the fatal seizure; he remained muscular and fat.	8 months.	Diarrhœa followed by an epileptic fit; a succession of fits, attended by incessant vomiting and occasional delirium; ended in death on the fourth day.	Both S. R. C. destroyed, and containing cheesy, gritty, and semi-purulent deposit; a complete examination was made, and no other visceral disease of importance was discovered.	In this, as in case 23, a peculiarly disagreeable odour was observed to exhale from the patient's body for three or four weeks before death.
He died after a fortnight's illness from delirium tremens.	3 weeks or more.	Sank into a typhoid state, with low delirium, for some days before death.	Both S. R. C. were converted into abscesses, but their cortical structure was not wholly destroyed; circumscribed abscess in the liver.	In this case the suppurative inflammation of the S. R. C. had probably been acute and quite recent.

No.	Reference	Sex.	Age.	Occupation, etc.	Previous Health.	First Symptoms.	Degree of Bronzing.
18	Dr. Addison's Work, page 29	M.	60	Not stated.	No history.	No details.	Skin generally dark and bronzed with patches blanched and white. Plate XI.
19	*Med. Times and Gazette*, p. 233 (Dr. Stocker).	M.	56	Physician.	Dyspeptic, but not otherwise in bad health.	General malaise and irritability of stomach; increasing debility and emaciation.	Patches of dark brown discoloration first appeared about the neck, hands, and abdomen. These increased, but the face remained, except some small patches, of natural colour.
20	*Med. Times and Gazette*, Dec. 15, 1855, page 594 (Mr Startin).	M.	12	At school; Irish.	Had suffered from abscesses in the neck and slight cough, but was on the whole strong and robust.	Loss of flesh and gradually increasing languor; fanciful appetite.	Copper brown in all parts, the face and neck being tinged deepest.
21	*Med. Times and Gazette*, Dec. 29, 1855, page 648 (Dr. Peacock).	F.	14	At school.	Healthy.	Lassitude; muddy complexion, and slight cough.	Of a brown muddy tint, deepest on face, arms, and shoulders; no mottling.
22	*Med. Times and Gazette*, Jan. 19, 1856. page 61 (Dr. Burrows).	F.	28	Married; temperate.	Delicate.	Menorrhagia and subsequent debility 2 years before the change of colour.	A tawny or yellowish brown tint, most deeply marked on the face, arms, thighs, and legs. Patchy discoloration in parts.
23	*Med. Times and Gazette*, Feb. 23, page 191 (Dr. Rowe).	M.	45	Carter; married; temperate,	Robust.	Spots of dark tints in various regions of the body. At first there was no illness or discomfort.	Skin generally of dusky brown not unlike a Mulatto, darker in some parts than others.
24	*The Association Journal*, Jan. 19, page 42 (Dr. Budd).	F.	42	Married.	Good.	A brown tinge of skin, followed by a three weeks' illness (Typhus fever), after which the bronzing became more marked.	Tint of skin generally like that of a North American Indian; certain parts darker than others.
25	*The Association Journal*, Jan. 19, p. 43 (Dr. Budd).	F.	40	Not stated.	Not stated.	.. ..	Very dark, general discoloration, large black patches in mouth.
26	*Med. Times and Gazette*, Feb. 23, 1856, page 189 (Dr. Thompson)	M.	33	Married.	Good.	Paroxysmal pain in the abdomen —loss of strength; amenorrhœa.	The skin generally became suddenly of a peculiar dirty brown tinge.
27	*Med. Times and Gazette*, Dec. 22, 1855, page 629 (Dr. Rankin).	F.	58	Married.	Formerly very stout and of large frame.	Loss of strength and flesh.	Face and hands dark brown; "as brown as a Japanese"; other parts not seen.

The impression which all who examine the details of the preceding table must receive will be, that its facts tend very conclusively to support the opinion that the peculiar symptom of Bronzing of the Skin is really indicative of a fatal cachexia, and of organic disease of the supra-renal capsules. We shall proceed directly to examine, in some detail, the peculiar symptoms and events which attend that cachexia, but must, in the mean time, ask attention to the circumstance which were the theory under discussion a false one, would be a most remarkable one, viz., that notwithstanding the wide publicity which that theory has had given to it, and the great general interest which has been excited respecting it, the two following assertions may yet be made :—

1. *No single case has yet been recorded in which a well-marked bronzed condition* (a) *of skin existed and recovery ensued, nor any in which, after death, the supra-renal capsules were proved to be healthy.*

2. *No single case has yet been recorded in which, after death, both supra-renal capsules were found disorganized* (b) *by chronic disease, and in which the skin during life had not assumed the bronzed condition.*

JONATHAN HUTCHINSON.

(To be Continued.)

(a) By a "well-marked condition of bronzing," we intend to exclude those cases in which only a state of diffused muddiness of skin was observed, and also those in which the tint was one which might possibly have been a degree of jaundice. The change of hue in true bronzing is a pigmentary one, and is probably incapable of being assumed suddenly as described in Case 26. In all well-characterized cases there ought to be some appearance of patches or mottling. On this account, as well as on other loopholes which exist in the evidence, we incline to ignore the seeming exception to the assertion furnished by Case 21.

(b) The destruction of parts of the supra-renal capsules, or even of the whole of one of them, is not sufficient. So long as any considerable portion of their normal structure remained, it is quite possible that their function might be performed to such an extent as to prevent the manifestation of symptoms.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 95.—On Pettenkofer's Test for Bile.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—In the course of an experimental inquiry into the nature of the difference between hepatic and cystic bile, which seems to me most clearly to refer an important catalytic function to the mucous membrane of the gall-bladder, I have met with a fact quite new to me, and which you may consider deserving of notice.

It became necessary for me to apply Pettenkofer's test to an albuminous solution, suspected to contain a minute portion of

General Symptoms, Complications, etc.	Whole Duration of Disease.	Mode of Death.	Autopsy.	Remarks.
Anæmia; extreme feebleness of heart's action; uneasiness and irritability of stomach; slight œdema of upper extremities.	Not stated.	Died of debility; cancer in the mediastinum was suspected.	No autopsy.	This case, Dr. Addison states, bore the closest resemblance to case No. 6. The cachexia was precisely that of diseased capsules; cancer in the mediastinum was suspected from the œdema of the upper extremities.
Great debility and wasting; no organic disease excepting that of the S. R. C. being indicated.	About 6 months.	Sank from exhaustion.	No autopsy.	In this case the presence of the bronze patches enabled Dr. Addison to predict the patient's speedy death at a period when there were no other alarming symptoms.
Some emaciation; great and increasing debility; heavy oppressed aspect; urine healthy.	9 months.	Sank under an attack of diarrhœa, and just before death had a succession of convulsive spasms (epileptic?)	No autopsy.	For four months before death, the boy had been getting gradually weaker and weaker.
Countenance expressive of extreme languor; some emaciation; great debility; liability to faintings and to short "seizures."	18 months.	Died suddenly in an epileptic fit. Had been progressively losing strength up to the time of death.	A chalky concretion found in the medulla oblongata; supra-renal capsules reported to be free from disease.	.. ..
Appetite very bad, some thirst; great debility; pain in the loins; menorrhagia; expression languid and anxious.	7 months.	Not known.	No autopsy.	.. ..
No material loss of general health until within a few weeks of death; debility then supervened, and loss of appetite; great irritability of stomach; failure of memory for some months; urine normal.	3 years.	He sank under incessant vomiting; delirium preceded death.	At the autopsy, the chief condition noted was the presence of tubercle in the lungs. The S. R. C. were not examined.	A peculiar and disgusting odour was noticed to exhale from the body a few days before death. See case 16.
About eight months after the first bronzing was noticed, she began to lose flesh and strength; a harassing cough now occurred; irritability of stomach; extreme anæmia and debility.	16 months.	Gradually sank from exhaustion.	No autopsy.	Eight months after the change in colour began, the patient was confined of a healthy infant which did well.
Anæmic, and extremely feeble; sickness and vomiting.	Not stated.	Gradually sank from exhaustion.	No autopsy.	This case is very imperfectly reported, but is stated to have resembled very closely the preceding one.
Previous to the change in colour of skin, she had been anæmic and very feeble. Coincident with that change, she fell into a peculiar collapse, and continued for several days much prostrated.	5 weeks.	Recovered under the use of tonics, and the skin resumed its condition of simple pallor.	Recovered.	In this case the disease of the S. R. C. might be conjectured to be merely inflammatory, and, therefore, susceptible of cure.
Sinking at pit of stomach; nausea; complete loss of appetite; great and increasing loss of strength. Heart's action very feeble; secretions healthy.	.. ..	Still living.	Living at the time of Report.	In this case the symptoms all combine to indicate the renal-capsular cachexia.

bile. The peculiar reaction presented itself to an extent indicative of a far greater quantity of bile than could have existed in it. I therefore applied the test to the white of an egg,—with the precautions which I will describe more at length in the details of the research which I purpose sending you,—and found the usual reaction exhibited in a most marked manner. Whether this result be due to the albumen proper, or to some other body co-existing with it, I have not yet decided. If the former, Pettenkofer's method fails as a discriminating test when albumen is present;—if the latter, we have the promise of some new facts in connexion with the process of incubation.

I am, etc.

GEORGE KEMP, M.D. Cantab.

Guernsey, February 12, 1856.

No. 96.—CHARLES WHITE, OF MANCHESTER.

SIR,—Charles White, of Manchester, was one of the most able and original-minded members of our Profession that flourished in the last century. I heard of his sayings and doings chiefly by scraps, as they are copied by authors one from another; but I beg to ask, if any collected edition of his works, or a Life, are in existence? If so, when published, and where? Foreign Surgeons seem to have appreciated him more than English ones have done; but then he was not a *Londoner*, and he was not a *pure*, but only a good, honest, hard-working, provincial Surgeon, which may explain the contempt of some of the monopolizing fungous gentry of the Metropolis. Hoping for an insertion in an early number,

I am, etc. TRANSUMBER.

ANSWERS.

To No. 92.—LONG-CONTINUED SECRETION OF MILK.

[*To the Editor of the Medical Times and Gazette.*]

SIR,—The best means of arresting the secretion of milk, is the application of extract of belladonna, according to the following formula:—

℞ Extract. belladonnæ ʒj., aquæ destill. ℥j. Ft. lotio. To be applied to the breasts twice a-day, with a camel's hair-pencil.

In ordinary cases this application will arrest the secretion in a few days, and no bad results follow. In such a case as the one mentioned by R., a more lengthened use of the remedy might be necessary; its general effect on the system being carefully watched. The belladonna seems to act by paralyzing the nerves of the part to which it is applied.

Liverpool. I am, etc. W.

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Medical Times & Gazette.

SATURDAY, MARCH 8.

THE NEW MEDICAL REFORM BILL.

The New Medical Reform Bill being now fairly before the Profession, it is competent for us to consider its provisions and its probable influence upon the present and future Practitioners of Medicine. That the Bill contains many commendable features may at once be admitted; and its authors have made many praiseworthy efforts to conciliate animosity, and to win support, by incorporating several of the best suggestions which have been thrown out in previous Reform Bills. An efficient Registration of the whole Profession is to be made and maintained by competent authority; the representative principle is to be admitted in the constitution of the governing body; reciprocity of practice is to be established among the Practitioners of the three Kingdoms; uniformity of education is to be secured by efficient supervision of Universities and Colleges; some preliminary knowledge is to be required from all who propose to enter upon the study of Medicine; all persons holding degrees in Medicine at the time of the passing of the Act, are to be entitled to register as Physicians; the General Practitioner is to be abolished and absorbed into the body of Physicians or Surgeons; registered persons are alone to be entitled to claim payment for their services, and to hold Medical and Surgical offices; and persons falsely pretending to be on the register are to be punished by fine and imprisonment.

The measure has hitherto been received rather with tacit indifference, than with either determined opposition or strenuous support. Now that the Bill has passed through a second reading, the Corporations are beginning to bestir themselves, and to inquire how far their interests are concerned in the proposed changes; while the General Practitioners, who compose the great bulk of the Profession, but who possess no common bond of union, are naturally anxious that they should not be placed in future in a worse position than they occupy at present. This numerous and respectable body, comprising great intellect, energy, and enterprise, has for many years been maintaining a rather unequal struggle against Quackery in various forms; and while its individual members have been progressively advancing in scientific knowledge and in general usefulness to the community, they have, in many cases, been supplanted in public estimation by persons possessing no Medical knowledge at all, or professing some of the most despicable and ridiculous systems of modern empiricism. In proportion to the advancement in science of the Practitioner of the present day; in proportion to his diffidence in drawing general conclusions from insufficient data; in proportion to his discontinuance in the immoderate use of drugs, and his reliance upon enlightened principles of hygiene in the treatment of disease: so, on the other hand, do a host of ignorant and impudent pretenders arise, who profess to cure all diseases by infallible nostrums, who misconstrue the modesty of legitimate practice into the veil of incapacity, and who, by their large promises and reckless assertions, succeed in robbing the Profession of its lawful emoluments, and the public both of their money and their health. Against these persons the terrors of the present law are ineffectual; and Quackery is so highly favoured in the high places of the land, that any measure professing to check this great evil would have very little chance of success. But, while our legislators are thus indifferent to the progress of quackery, and indisposed to protect the educated Practitioner, the latter is entirely dissatisfied with any Legislative measure which does not attempt to suppress the practice of Medicine by unqualified persons. Hence, we think, may be traced the coolness with which the General Practitioners throughout the country regard the present measure, which, whatever may be its merits, undoubtedly makes no attempt to raise fresh obstacles to illegal practice, but rather removes those which already exist.

The constitution of the Medical Council is a subject which will give rise to very much discussion among the Corporations, and it will be no easy task to reconcile the conflicting claims which each College and University may advance. At present, we believe we are correct in stating that the proposed composition of this Council has given rise to universal dissatisfaction; as its members are selected rather from the ancient reputation of the Corporations which they represent, than from any regard to the numbers, the importance, or the intelligence of their constituents. It is, therefore, generally admitted that the proposed Council must be very extensively modified before it can be brought into efficient operation.

But a far more serious question arises, as to the functions and jurisdiction of the Medical Council in its fourfold relations to the State, to the Medical Corporations, to the Profession at large, and to the general Public. The Medical Council now proposed would, indeed, represent the Colleges and Universities, and, if the representative principle were fully carried out, might in some measure represent the great mass of Medical Practitioners: but it would be still entirely inefficient in its relation to the State, and would exercise no influence upon the community in general. When the promoters of the present Bill first commenced their labours, the supervision of Medicine and Medical affairs formed no part of the system of the State-machine; but lately the appointment of a President of the Board of Health with a seat in the Legislature, has given a prominence to our Profession in the House of Commons which did not previously exist; and thus the great interests of Medicine may be duly represented by a statesman who is responsible to the three estates of the realm.

Without pledging ourselves to any definite scheme, and without, at present, doing more than directing the attention of the Profession to this important topic, we may take occasion to observe, that by an incorporation of the Medical Council with some existing machinery, an effective system of Medical supervision might be organized, which would exercise a most beneficial influence upon the progress of Medicine. By possessing at its head a Minister of Public Health, our Profession would occupy its due place as one of the constituent and essential elements of the State; while, by a due superintendence of the machinery of Medical education, the position of our fraternity would be indefinitely improved. But not only might such a Council organize the details of Medical Registration and Medical examinations, but it might take a broader range, and sweep over the whole domain of Public Hygiene; might watch the progress, and arrest the virulence, of epidemics; might regulate the practice of Vaccination; might shield our brethren from the ignorance or the arrogance of local Boards; might protect the public from adulterations in food and drugs;—in a word, might investigate the causes of disease, protect the interests and promote the education of the Medical Profession, and defend our rights by means of its Representative in the great Council of the nation.

THE WEEK.

In a recent number of the *Times* two advertisements appear in juxtaposition: one is from the Guardians of the Poor of the Parish of St. Marylebone, who require a person to super-

intend the oakum-picking by the out-door paupers, and for which service 20s. a-week are offered as wages; the next is from the Guardians of the Ampthill Union, who require a qualified Medical gentleman to attend the poor of a population of about 2700, in an area of 7671 acres, and for which £50 a-year is the salary proposed. It will thus be seen that a superintendent of oakum-picking is paid a higher rate of wages than a member of our Profession; because we presume his services are more valuable, or the competition for the office is less. We should like to be informed whether the Clerk to the Ampthill Union is satisfied with a salary of £50 a-year; and, if not, we think it a fair subject of inquiry, whether the village Attorney is socially or educationally higher in rank than the Practitioner of Medicine? or is the solution of the question to be found in the greater *esprit de corps* which prevails in the Legal Profession?

The debates on the Crimean Army Commission, and the newspaper comments thereon, are melancholy enough in some respects. We may regret, not only the loss of so many thousands of our countrymen,—and whether it arose from unavoidable causes, or from gross and culpable mismanagement, it is of little avail to inquire now. A new war, after forty years of peace, carried on with rusty and insufficient machinery, may be a valid excuse. What we regret still more, is the absence—shall we call it the extinction?—of anything like highly-toned morality, generosity, and honour, among almost all persons, without exception, whose names have been mentioned in these unhappy squabbles. The grossest misapprehension of duties, or the most culpable neglect of them; contradictory statements on the simplest matters of fact; crimination and recrimination; flat assertion, and flat denial; these are the characteristics and the statements on every given point by officers high in rank, and loaded with rewards. There is only one point in which there is unanimity; and that is, hounding down and traducing the members of our own Profession. Any imbecile who has connexions in the House of Commons, is sure of a defender. Medicine, too laborious and ill-paid a pursuit for the scions of the aristocracy, has no friends. An Earl may lose a brigade of cavalry; a regiment may melt away in forty-eight hours, from exposure and neglect, and nobody is blamed. But Hall or Smith, or any mere *Medical person*, is fair game, when the cry is, "Whom shall we hang?"

The culprit, Westron, who was convicted of the murder of Mr. Waugh, but recommended to mercy by the jury on the ground of his *predisposition to insanity*, has been sentenced to penal servitude for life. It will thus be seen that the Government has adopted the view which we advanced in alluding to this case. The severe punishment which is thus inflicted upon this miserable wretch will, it is hoped, deter others from perpetrating similar crimes, while the disgusting exhibition of a public execution will be avoided. If it should turn out eventually that Westron is really insane, he will, of course, be removed to a lunatic asylum; but if, as is more probable, he is one of those mischievous and spiteful persons who recklessly commit crimes in the hope of being acquitted on the ground of irresponsibility, then his fate will be a warning to others similarly disposed with himself to wreak revenge upon real or fancied enemies, or by atrocious deeds to gain a morbid notoriety at the expense of the public safety.

We may take some credit to ourselves in having assisted in bringing to a successful issue the siege which has so long been carried on against two of the fortresses of the "dirty" party, namely, the Workhouse of St. Pancras, and the abominations of Belle-Isle. In the former case, the Report of Dr. Bence Jones has acted like a bomb-shell among the local authorities, who now make only a feeble show of resistance, and will very soon surrender at discretion; while the publication of the details respecting the treatment of the lunaties (which will be found referred to under our News Department,) within the Workhouse will contribute still more to abolish this reproach to modern civilization. In the case of Belle-Isle, the Clerkenwell magistrates are carrying on a vigorous crusade against the bone-boilers and tallow-melters, and are inflicting fines in almost every case brought before them, so that Sanitary Reform may be said to be on the point of achieving a signal triumph in this odoriferous locality. Like the fortifications of Sebastopol, both these strongholds have been defended with a pertinacity worthy of a more savoury cause, and we have little doubt that at least a remnant of the brave garrison at each place will prove their consistency by perishing at their posts amidst the ruins of the citadels which they have "loved not wisely but too well;" wrapped in the fumes of carbonic acid and sulphuretted hydrogen, and embalmed in the memory of man in perfumes which it would puzzle Dr. Alfred Taylor to analyze, or Baron Liebig to describe.

The unanimity said to prevail on the subject of the New Medical Reform Bill must surely exist only in the imagination of its authors, and the support which it is likely to receive from the Profession must be equally hypothetical; for, except in one single Journal, we find that its provisions are more or less disapproved by all the Medical Press, and not one single public meeting has yet been called to discuss its principles. The Medical Corporations which were said to have been conciliated are, on the contrary, vehemently opposed to it, and will dispute its progress, step by step, in committee. The mass of the Profession generally disapprove it, if we may judge from the communications which we daily receive from various parts of the country; and some who, like Dr. West, (whose letter we publish to-day,) signed petitions in its favour before they had read it, have repented of having done so since the Bill has appeared in print.

REVIEWS.

Medical Anatomy. By Francis Sibson, M.D., F.R.S. Fasciculus IV. London.

We are happy to welcome a new number of this very valuable work. It cannot be too often impressed upon the mind of the Physician, that he ought to regard the parts concealed within the thorax and abdomen as objects which—although invisible to the sight—are as patent to his mental perception by auscultation, percussion, and palpation, as the external organs. The plates in Dr. Sibson's series remove some of the external coverings, and reveal the subjacent structures with their relations to the solid framework of the ribs, the spinal column, the clavicles, and the scapulæ; while the letter-press explains the modifications as to relative position which the parts undergo, under the influence of healthy or diseased action. Inspiration expands the thoracic cavity, expiration contracts it; emphysema induces permanent expansion, phthisis induces permanent contraction. It is only by a careful study of the mutual relation of the soft parts to the bony framework, and of the ever-varying changes which the soft parts undergo, that the Physician can form an accurate opinion of the nature and extent of many visceral diseases. The plates before us, and the explanatory remarks of Dr. Sibson, are calculated to clear up many of the difficulties which naturally beset the study of thoracic and abdominal pathology, and to introduce a certain degree of precision into the history of a most important class of maladies.

The present number contains three plates:—The first two exhibit lateral views of the thoracic and abdominal viscera, the ribs, lungs, and liver being retained *in situ* in the one, and removed to show the heart, spleen, and pancreas in the other. The third plate contains a representation of the spinal

column and ribs, with the scapulæ, seen from behind, and the relative position of the lungs, liver, kidneys, and intestines. The plates are executed with their usual excellence, and the number fully maintains the high character of the series.

Surgical Anatomy. By Joseph Maclise. Second Edition. Fasciculus XI. London.

This number of Mr. Maclise's well-known work contains four plates crowded with figures :—the first has five figures representing the anatomy of the perinæum and of the pelvic viscera : the second and third contain together nine figures showing the parts, superficial and deep, concerned in lithotomy : and the fourth has no less than twenty-three figures relating to the congenital and pathological deformities of the prepuce and urethra. It is needless to expatiate upon the merits of Mr. Maclise's Surgical Anatomy ; and we only give expression to a general feeling, when we wonder how such an elaborate production can be offered to the Medical public at so cheap a rate.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Edinburgh Correspondent.)

Edinburgh, February 23, 1856.

The week which terminates to-day has been one of no small amusement, as well as of interest, to the Profession. In the Introductory Lecture by Professor Bennett occurred a passage of which, to the surprise of all here, no notice was taken in your review, which otherwise gave so much satisfaction. The passage is to the following effect :—

"Again, pneumonia consists of an exudation into the vesicles and tissues of the lung, which coagulates, and excludes the air. It is very doubtful whether a large bleeding from the arm can operate upon the stagnant blood in the pulmonary capillaries ; that it can directly affect the coagulated exudation is impossible. But lowering the strength and vital power of the individual, is directly opposed to the necessary vital changes which the exudation must undergo, in order to be removed by cell-growth and disintegration. Hence it is, in my opinion, that the mortality from pneumonia has diminished since large bleedings have been abandoned, and not because, as has been suggested by an eminent authority, inflammations, like fevers, have changed their types since the days of Cullen and Gregory (a).

"Again, the absorption of a pleuritic effusion depends on the formation of new blood-vessels in the coagulated exudation which is adherent to the pleuræ. These, in their turn, are the results of cell-formation. Can such formation be encouraged, and an absorbing, instead of an exhaling, surface produced by large bleedings, or by mercury?"

To this passage exception was taken by Professor Alison, and that veteran philosopher gave notice of his intention to read a paper at the Medico-Chirurgical Society on the Changes in the Type of Diseases.

Accordingly, on the night of the 20th instant, the large room was crowded in every part. Dr. Alison was not able, on account of his health, to be present himself, but his paper was read by Dr. W. T. Gairdner, one of the Secretaries. It set out by quoting the above passage from Dr. Bennett, and then proceeded to show, by a reference to the descriptions of disease which are found in the older authors—especially Cullen—that the pleurisy and pneumonia then met with presented very different characters from those which the diseases called by the same names now exhibited. He then went over a list of various diseases manifestly benefited by blood-letting. He showed how very little such purely theoretical views as those of Dr. Bennett had advanced the practice of Medicine in past times, and how absurd it was to sacrifice the results of experience at the shrine of every quasi-pathological doctrine. The paper was clear, calm, very logical, and made a profound impression on those who listened to it. I do not give you a more extended sketch of it, as I understand that it is to appear *in extenso* in the March number of the *Edinburgh Medical Journal.*

Professor Simpson, in shortly expressing the thanks of the Society to Dr. Alison (as had already been very neatly done by Dr. Maclagan, who occupied the Chair), drew a comparison between the mortality of the troops in cases where pneumonia had been treated with and without blood-letting.

Dr. Alexander Wood animadverted in very severe terms on the absence of Dr. Bennett from this discussion. He condemned the conduct of any teacher of Medicine cramming such crude and undigested theories in regard to practice, as those of Dr. Bennett, into the heads of young men who had no practical acquaintance with disease, and then refusing to discuss them with his compeers. Dr. Wood expressed a doubt whether a great deal of our change in Medical practice was not the result of fashion, and whether we were not now rushing into the opposite extreme of avoiding blood-letting too much. He then went over the substance of Dr. Alison's paper, illustrating his remarks by the results of general experience in particular diseases. He argued that those whose experience was chiefly derived from the broken-down inmates of Hospitals were not the best judges of the employment of the lancet.

Dr. Andrew Wood also strongly censured Dr. Bennett's absence. He supposed, as no one had taken up the gauntlet thrown down by Dr. Alison, that there was a substantial agreement in favour of his views. He illustrated the changes which had occurred in disease from his own experience, which, he said, now ranged over a quarter of a century. With these remarks the discussion terminated, chiefly owing to the evident desire of the Chairman to overtake the next paper in the list, in which, however, as ten o'clock had arrived, he was unsuccessful.

On Friday, the 22nd, Dr. Bennett read a paper, on the Modern Doctrines of Pathology as applied to Practice, at the Royal Medical Society. This institution is purely a Students' Society, and though most admirably adapted for the purposes for which it is intended, is not usually chosen by Practitioners in Edinburgh as the place for bringing forward their communications.

The paper of Dr. Bennett, (which occupied two hours in reading, although he enunciated it tolerably rapidly,) went over nearly the whole ground of the cell pathology, and ended by attempting to show that not blood-letting alone, but every species of treatment which Medical men are in the habit of applying, is utterly at variance with sound pathology. He was supported in this by Dr. Sibbald.

Professor (of Greek) Blaikie congratulated Dr. Bennett on the enlightened views which pervaded his paper, and argued, from the differences prevailing among Medical men, that all would soon be driven to embrace Hydropathy.

Professor Macdonald, of St. Andrew's, used similar arguments in regard to Homœopathy !

Among the Students who spoke were Messrs. Spasshett, Marshall, Thorburn, and a gentleman whose name no one near us seemed to know, but who is, we understand, an assistant of Professor Goodsir. Mr. Spasshett's speech, in particular, gratified us extremely. He travelled over the whole ground of Dr. Bennett's paper, and showed that even on his own premises his conclusions were illogical.

(a) See Dr. Alison in the "Monthly Journal of Medical Science," November, 1852.

Edinburgh, March 1, 1856.

ROYAL EDINBURGH LUNATIC ASYLUM.

The annual general meeting of this Incorporation was held on Monday, the 25th instant, Dr. Andrew Wood, President of the Royal College of Surgeons, in the chair. The Manager's Report stated, that the average number of patients in all departments, during the year 1855, was 54,621, being 5 less than the former year. Additional accommodation is being provided for 200 additional patients, at an estimated expense of £12,213, exclusive of painting, etc.

The income during the year was £16,659 5s. 5d., and the expenditure £16,301 13s. 10d., leaving a balance to the credit of the Institution of £357 11s. 7d. The debt amounts to nearly £30,000.

The Surgeon's Report, by Dr. Skae, stated that 762 individuals have been under treatment, while the average number resident was 545. The recoveries were in the ratio of 42·6

per cent. to the admissions, or 17·4 per cent. to the mean number resident. The mortality was in the ratio of 11·4 per cent. to the average number resident, or 8 per cent. to the entire number under treatment. Upwards of 80 patients were refused for want of accommodation. The Report went on to lament the number of incurable cases removed to the various Workhouses, from motives of economy, the change being anything but a boon to the patient.

The brutal practice of bringing patients to the Asylum in irons was strongly condemned, and an attempt was made to impress on all concerned that in 99 cases out of 100 the excitement and agitation of the insane arise from terror and not from anger, and that they should be objects of tenderness and not of restraint; and, further, in regard to the cases of real violence, it is certain that one sane person, with ordinary tact and presence of mind, is more than a match for any insane person, without having recourse to manacles or instruments of restraint, which only engender the irritation and violence they are intended to control. One case of suicide by hanging occurred, being only the second in the last ten years. One remarkable and novel incident occurred. A young female, who had for months made repeated and daily attempts to commit suicide, was detected in the act of assisting another female to destroy herself by strangulation.

With regard to the causes, intemperance, which formerly figured as the cause in one-third of the cases, has diminished to 1 in 4.

Three cases were traceable to solitary imprisonment for crime; 2 arose from religious anxiety or excitement.

Of the deaths (62), 16 died from insanity, and the remainder from diseases usually associated with it. One-third of the deaths were attributable to tuberculosis. The amusements and recreations of former years were continued during the past year. Of these, out-door games, such as quoits, bowls, cricket, and curling, and excursions to the country, or to the sea-side during the bathing season, were found the most beneficial. A museum of natural history and geology has been commenced, and already presents a very interesting collection of specimens. The meeting was subsequently addressed by Lord Murray, Councillor Blackadder, and the Chairman.

On Wednesday, the 27th ultimo, a *conversazione* was given by the members of the Royal Medical Society, instead of their annual dinner; and most of the *élite* of the Profession, and a large number of the general public, attended. The company were received in the handsome suite of rooms containing the library, the tables of which were covered with microscopes displaying objects of interest in natural history. At eight o'clock an adjournment to the Hall took place, where Professor Goodsir delivered an admirable lecture on Life and Organization, which was of far too abstruse and condensed a character for us to attempt an abridgment. It will be found in the next number of the *Philosophical Journal*. On Friday the Second *Conversazione* given by the Royal College of Surgeons was held.

ASSOCIATION OF GRADUATES OF THE UNIVERSITY.

The second annual meeting of the Graduates' Association was held yesterday in Professor Kelland's (Mathematics) Class-Room, presided over by Professor Ayton (Rhetoric). Mr. Mure, Advocate, read the report. It stated that the existence of the Society had been cordially welcomed by the members of the Senatus generally. The Association had already received large support from the Graduates.

The efforts of the Committee to obtain for the Graduates access to the Library had resulted favourably. The Town Council, on receiving their petition, transmitted it to the Senatus, by whom it had been well received, and the conditions under which the privilege would be granted would be speedily arranged. A memorial had been transmitted to the Home Secretary, as to the grievance of the Medical Graduates on being excluded from practice in England.

The Committee, in conclusion, expressed the hope that the Association would proceed with further and constant efforts to promote a close union of Graduates with the University, to secure the establishment of Fellowships and Tutorships, and to endeavour to secure from Government an endowment for this purpose, and to promote generally a higher degree of education in the University, and throughout the country generally. The meeting was addressed by the Chairman, Professor George Meson, Dr. Bowen Murdock, and Dr. Priestley.

CHAIR OF MILITARY SURGERY.

Professor Syme has written to Lord Panmure suggesting that the duties of the Chair should be transferred from the University of Edinburgh to some large Military Hospital, where its duties could be illustrated.

DR. ALISON—RETIRING ALLOWANCE.

The gentlemen of the long robe have given an opinion that the University have no funds for this purpose. Surely Government would do well to consider the great claims of this distinguished man.

IRELAND.

Dublin, February 19, 1856.

The Commission recently held upon the Dublin Hospital Grants has presented its Report, and strongly recommend their continuance to the full amount agreed upon by the Committee of the House of Commons, £16,000 a-year. The Report has not as yet been made public, but it has been submitted to the consideration of the authorities of the several Hospitals to which it is proposed to continue or grant the public bounty. The "Hospital Grants' Committee" is summoned to meet on to-morrow, the 20th instant, at four o'clock, to consider the Report. The Commissioners advise the appointment of an unpaid Commissioner, with a paid Secretary, to superintend the management of the Hospitals receiving Government grants, and as they have as yet appropriated only £15,600 among these institutions, it is surmised that the salary of the latter functionary is intended to be £400 a-year. The grants are to be continued with increase to the Lock Hospital, the Lying-in Hospital, (with an increase of £200 a-year, although alterations are suggested, involving a change in the charter of this institution,) the Meath, and Steeven's Hospitals. The Richmond, Whitworth, and Hardwicke Hospitals receive a grant sufficient to maintain them in their integrity; the Governorship of the House of Industry is to be abolished, as are the Lunatic Department connected therewith and the Talbot Dispensary. Small grants are given to the Coombe Lying-in Hospital and St. Mark's Ophthalmic Hospital. The application for a share of the Grant from the other Hospitals not hitherto receiving it is refused, for reasons assigned in the Report.

At the meetings of the Pathological Society to which I alluded in my last letter, held on the 12th and 19th of January, Dr. Stokes on both occasions presiding, the following communications were made. Dr. Banks detailed an interesting case in which, in a man aged twenty, the heart displaced to the right side of the sternum in consequence of pleuritic effusion, was attacked with intense pericarditis, manifested by severe pain and a loud friction-sound. The supervention of pneumonia of the right lung rapidly carried off the patient, and on dissection the sac of the pericardium was found to be nearly obliterated. A circumscribed abscess, formed by adherent pleura and filled with pus, occupied the normal situation of the heart, and communicated with the general cavity of the left pleura, which contained more than two quarts of purulent matter. Mr. Richardson, by permission of Dr. Brown of the United States, exhibited a phosphatic calculus, which had been removed by the lateral operation, by Dr. Rien of Bangor, United States, and was remarkable for the nature of the nucleus, viz., a leather thong, five or six inches in length, which the patient had introduced into the urethra, and which subsequently, finding that it had passed back beyond his reach, he had pushed into the bladder to relieve himself from the irritation he suffered from its presence in the passage. Curiously enough, the thong formed a loop on the side of the calculus which much facilitated the extraction of the latter. Dr. Fleming exhibited the parts removed by amputation in a case of extensive contusion and laceration of the arm and forearm, with compound fracture completely detaching the inner condyle of the humerus, and dislocation of the head of the radius forward—injuries produced by the elbow of a boy, aged 12, being caught between the cogwheels of the machinery in a paper factory while in motion. Dr. John Hughes exhibited a specimen of Gangrene of the Lung.

At the meeting held on the 19th, Dr. M'Clintock exhibited the kidneys and thoracic viscera of a woman in whom pneu-

monia and empyema had occurred after convulsions and abortion in the fifth month of her fourth pregnancy. The kidneys were found to be in a state of granular degeneration, and it appeared to Dr. M'Clintock that this was the predisposing cause of the production of the convulsions, and that pregnancy had acted merely as the exciting cause. Dr. Banks brought forward an example of hydrocele of the liver. A large dense cyst, resembling white leather, had been formed at the expense of the left lobe, of which a very small portion of the extreme end alone remained. The cyst contained about half a-pint of fluid, which was examined by Dr. Fraser, and was found to contain blood in progress of disintegration, exudation cells, cholesterine, etc. Dr. Kidd laid before the Society the heart, in a state of extreme fatty degeneration, of a woman, aged 23, who died rather suddenly six hours after the birth of her second child, without any hæmorrhage, either external or internal, sufficient to account for the fatal result, or for the great depression she had exhibited during the period which elapsed between the termination of her labour and her death. The liver also was in an advanced stage of fatty degeneration, the lungs were emphysematous, the kidneys healthy. Dr. M'Dowel brought forward a specimen of the lung with which Bright's disease of the kidneys had co-existed. In remarking on this case he expressed his opinion that chronic renal disease has a great effect in determining the development of suppurative inflammations. Dr. Barton was indebted to Dr. Montgomery for permission to submit to the inspection of the Society a fœtus in which the right lower extremity was wanting, not, as it appeared from the condition of the pelvic bones, from spontaneous amputation, but from non-development. Almost the entire of the right side of the pelvis was absent; the sacrum on the right side was rounded off on a line with the radii of the lumbar vertebræ; only a small fragment of the right pubis remained attached at the symphysis, and there was no psoas muscle on the right side. The abdominal viscera seemed to have been contained in a pouch outside the wall of the abdomen, which was deficient on the right side. There was no trace of any cord.

At the third meeting for this session of the Association of the College of Physicians, held on January 2, Dr. Aquilla Smith continued his observations on certain preparations of the Dublin Pharmacopœia. Dr. Hughes brought forward two cases of cancer of the liver to which I have already alluded in my reports of the proceedings of the Pathological Society. Dr. Moore, of Hume-street, detailed the history of two cases which may be said to have stood to one another in the relation of cause and effect. The first was one of idiopathic tetanus, occurring in a wretched and emaciated woman, aged 34, a few days after abortion, at the third month. The disease proved fatal in three weeks from the date of her miscarriage. The second which Dr. Moore has designated hysterical trismus, is, as he observed, a striking example of the powerful influence exercised by the mental over the motor or physical powers. Its subject was a primiparous woman, aged 25. Her labour was tedious, but natural, and she was safely delivered. Nine days after delivery she was in a highly tetanic condition, apparently owing to the effect produced on her mind by the impressive recital of its appalling horrors by her nurse-tender, who had attended the former case. Wine, nourishment, a full opiate, and, above all, the confidential assurance that she had no real disease, had the desired effect of gradually removing her symptoms.

At a meeting of the Obstetrical Society, held on the evening of the 15th instant, Dr. M'Clintock, Master of the Lying-in Hospital, in the chair, several interesting cases were detailed by Dr. Hardy; among them was one of a lady who had laboured under the most obstinate constipation, accompanied with symptoms of so serious a nature as to give her case the appearance of one of strangulated hernia. The ordinary remedies having been fully but unsuccessfully tried, an enema composed of 2 fluid drachms of chloroform, mixed with 1 ounce of olive oil, and 3 ounces of mucilage of barley, was thrown up with the long tube; its administration was followed by immediate relief of the intense pain which the patient had been suffering, but it was not until 4 other enemas, each containing 1½ drachm of chloroform, had been given at intervals of three hours, that the constipation was removed. Copious discharges of thin feculent matter now took place, and steady convalescence ensued. Dr. Hardy's paper was followed by one by Dr. Jennings, on the use of the forceps.

GENERAL CORRESPONDENCE.

NEW MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—You have, upon former occasions, done me the favour to give currency to my views; I hope, therefore, there is no occasion to make a lengthened apology for asking you to insert in your next Journal a few observations upon the "Medical Act, 1856," as it is to be called, in order to draw the attention of the Profession to some of its clauses, elicit discussion thereon before it goes into committee in April, and thereby enable its supporters and friends, by showing its defects, to render it more perfect for the public good, and acceptable to the Profession.

The preamble, title, and the time at which the Act is to come into operation, are first set forth; the 3rd clause repeals some Acts, or parts of Acts, named in Schedule (A), except as to the recovery of any penalty, etc. Would it not have been better to have repealed the whole, and have embodied what was worth retaining in the present Act?

Clause 4 proposes to establish a Council, to be styled, "The Medical Council of the United Kingdom," and sixteen public bodies are each to send one member to the Council, to which eight persons are to be added, and called "The Representative Members." Now, surely, if the representative system is to be admitted an element in the formation of this Council, the representative members ought to equal in number those chosen by the Universities and Colleges collectively. Thus, instead of EIGHT representative members I would have SIXTEEN, which, together with the sixteen chosen by the Colleges, etc., would make the Council to consist of THIRTY-TWO.

The 7th, 8th, and 9th clauses provide for the appointment, by the Secretary of State for the Home Department, of the first members of the Council from those qualified to be registered under this Act, and for the election of the representative members; but it does not clearly define who these persons should be. The Secretary of State may appoint either Physician, Surgeon, or Apothecary, if they be legally qualified as such; and those persons whose names appear in the last printed Medical Register may elect any person entitled to be registered under this Act. This I consider a great defect, to remedy which, and to give the General Practitioners (who are by far the most numerous and influential division of the Profession) a proper status, I would propose and strongly urge that the representative members should be selected from persons holding the double qualification of M.R.C.S. and L.A.C.; and that EIGHT should be the number appointed and elected for England, FOUR for Scotland, and FOUR for Ireland; and that the representative system may be fully and fairly carried out, three of the eight English members should represent the Metropolis, and the other five the provinces. The Council will thus consist of

		Chosen by Colleges.	Representative.
13 members for	England	5	8
11 ,, ,,	Scotland	7	4
8 ,, ,,	Ireland	4	4

In order to confine my letter within due limits, I must pass over on this occasion all the clauses to the 35th, which, with the six following, relate to the privileges of the registered, and the penalties imposed by the Act, and what, readers, do you expect to hear they are? The registered can recover in any Court of Law for Medical or Surgical advice, Medicines, etc., and can hold public appointments. The non-registered can neither recover debts, nor hold any appointment, and if they use the name or title of a Physician, Doctor, Surgeon, or Apothecary, they may be fined by any two Justices of the Peace, and be committed to prison in default of payment; but if they do not take upon themselves any title implying they are registered under the Act, they may practise with impunity. Chemists and Druggists are tacitly legalized, and nothing in the Act is to affect their lawful occupation. A blacksmith, grocer, or any other person, who says, I have no pretension to the title of Doctor, or any other title; I am not a Doctor, but I am very successful in curing dropsy, consumption, and disease generally, may administer what he pleases, uncontrolled by the law.

Now, Sir, is this to be tolerated? Can the promoters of this Bill expect the support of the Profession while they allow any

ignorant uneducated person to reap the advantages that ought to be confined to Medical men only? Union is strength, and if the Profession will now combine to attend to their own interests, and urge upon the Legislature, individually and collectively, the necessity of introducing a clause to prohibit the practice of Medicine and Surgery by any one except the properly qualified, and discuss some minor points, they may yet get a useful Bill. I am, etc. M.R.C.S. and L.A.C.

Norfolk, March 4, 1856.

WANT OF UNION IN THE PROFESSION.

[To the Editor of the Medical Times and Gazette.]

Sir,—At the present moment, when so much praiseworthy exertion is being made to increase the remuneration for our Professional services, and this more particularly in the case of public appointments, it is painful to think that the main obstacle to the achievement of this object is to be found in the fact, that Medical men themselves will not support each other in demanding a just and equitable recompense for their services, and that whenever put into competition, men are to be found, and, I am afraid, not a few of them, willing to undersell their brethren, and who do not hesitate to merge in "trickery and dodging" the dignity and straightforwardness befitting the members of the Medical Profession.

The following is a case in point, and, as I think the only mode of putting a stop to such like practices is to give the facts publicity, and to expose the authors of them, I beg to send you the particulars, so far as I have learned them:—

For some time past the Magistrates of Liverpool have been engaged fitting up an old hulk named the "Akbar," as a reformatory for juvenile criminals. It is calculated, I believe, to contain 600, but is at present limited to 250. It was, of course, evident that such an establishment must have a Surgeon, and, accordingly, for some time previous to the completion of the arrangement, there were several candidates in the field. One of these, however, with more charity or, possibly, with more cunning than the others, wrote the Committee a letter tendering his services as Honorary Surgeon. Now, I believe that until the Committee met for the purpose of making the appointment, some of its members, at least, had no idea of making it an honorary appointment. No sooner, however, was such an offer brought before them, from a person otherwise unexceptionable, than they at once closed with it, and on the 20th instant appointed Mr. Roper, Rock Ferry, Cheshire, the Honorary Surgeon to the Akbar Juvenile Reformatory.

Why such an appointment should be made an honorary one, I cannot, for the life of me, see. I am not aware of the fact, but cannot doubt that the Superintendent, the Schoolmaster, and the Chaplain, will each and all of them have salaries attached to their offices; nor do the public expect the Medical man to render his services gratuitously.

Mr. Roper resides between four and five miles from the place where the Reformatory is at present moored. He agrees to attend all the functionaries on board, and to make his appearance at least twice in each week, so that, if properly attended to, the office will be no sinecure. Now that the Committee have appointed him, I trust they will not only keep the appointment a gratuitous one, but see that Mr. Roper does his duty.

I make these observations in no spirit of disappointment, as I was not even a candidate, and would certainly not have accepted the office on its present footing; but, as I think we have already far too many honorary appointments, which are very lightly esteemed by the public, I trust you will consider the subject of sufficient importance to merit a corner in your columns. I am, etc.

Liverpool, February 27, 1856. Lancastria.

P.S.—I enclose my card.

MEDICAL PROFESSION BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—If the promoters of this Bill intend that it shall pass into a law, they should lose no time in giving it every possible support.

I would suggest that petitions be signed by the inhabitants of the chief towns and boroughs of the kingdom, and forwarded at once to the House of Commons. By this means petitions emanating from Coffinites and other Quacks would be counterbalanced, and the statement that a monopoly is desired by the Profession effectually rebutted.

This plan I have reason to know was very successful; short time since in the case of the Naval Assistant-Surgeons and, I doubt not, would be equally so where the welfare of a Profession so useful to the public is concerned.

There is in my locality, I may say, a general wish for some kind of legislation, even though all the evils the Profession groans under may not be done away with. We want a proper system of registration, and recognition by the State, as one undivided body, to begin with. Amendments will follow in course of time, when all are prepared for them, without being oppressive to any class. I am, etc.

E. P. H. S.

THE MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—In our anxiety to clothe ourselves with a new measure of reform, we must take care also that we do not put ourselves in tighter harness, while failing to improve our position, and increase our protection from marauders.

Certain chinks are still left open for unqualified persons to squeeze themselves into illicit practice, in spite of the contemplated "Medical Act, 1856:"—

1st. The title of Physician, Surgeon, etc., can be dispensed with by a person in actual practice, and the law be evaded.

A Surgeon died in a village in Shropshire a few years ago, and his assistant jumped into his practice of £600 a-year, and has it now. He is a young man,—has passed no examination,—uses no title on his door-plate,—nor in his bills,—nor in any other manner! The people call him "Doctor,"—a conventional licence, with which the Act does not pretend to interfere.

2nd. The title of Surgeon can be, and is, used evasively by an unqualified person, in spite of the Act.

In a large town in Surrey, a druggist has on his immense door-plate—

T—— N——

Surgeon and Mechanical Dentist,

the word "mechanical" being so small as to be unseen by an unscrutinizing passer-by. The other words being very large, the smuggling adjective "Surgeon," deceives the public, and he is believed by the public to be a qualified Surgeon. He conducts, with tact and adroitness, a large shop-practice, and does considerable business out of doors, under pretence of looking after the teeth.

3rd. A druggist may even now evade the Apothecaries' Act, and visit patients abroad.

A druggist hereabouts is collector of taxes, etc., to a very large and populous district. In his rounds he "looks at" invalids, is followed home for medicines, and calls again for taxes! Have we any enactment to fit this gentleman?

If druggists are permitted to practise over the counter, let them be required by law (under penalties for refusal, evasion, or falsification) to give to every purchaser a written statement, in English, of the names and quantities of every ingredient contained in the article sold, whether simple or compound. They can use for such purpose a label, with name and address as usual. This publication of their Medical treatment would be an immensely wholesome check to them, and would enable Medical men in urgent cases to know what drugs had previously been administered, as well as to detect dangerous errors in compounding them.

I saw a child dying from the effects of an irritant poison. The mixture was sent by a Druggist for diarrhœa, and contained ʒj. of sulphate of copper in ʒjss. of fluid. Another person was taking oxide of tin and mucilage in mistake for chalk mixture. Labels on each, indicative of their contents, would have saved much time and trouble, and unraveled the cases immediately.

Now, Sir, as to patent medicines. Let them be obedient to the usual laws of patents. Let their composition be registered in a private Government office, and their licences be renewed every three or seven years, or, in default, become public. Let the proprietor's annual licence, as vendor, be graduated by the attested sale and profits: no greater a hardship than is borne by retailers of spirits. A publican, rated in the parish at £10 pays £2 4s. 1d. per annum for his licence; while he, who is rated at £50 pays £11 0s. 6d.

As to the recovery of charges by law, who of us ever troubles the law for that purpose? Your Herbalists and Homœopaths get paid somehow or other without law, or else, as the lawyers do,—draw money on account. Then, as to appointments:—How many Provincial Practitioners per cent. have any, or ever dream of them? However, these clauses are very acceptable. Mark Clause XLV. in the new Act:—"Nothing in this Act contained shall affect the lawful occupation of Chemists and Druggists." What the law cannot, or does not, hinder is, *ergo*, lawful! Then, Sir, your Shropshire Assistant—the "Surgeon and Dentist"—and Chemico-tax Collector, may snap their fingers, and

"Dance before the King."

I enclose privately, for your confirmation, the names of all the persons alluded to above, together with my own.

I am, etc. MEDICUS.

NEW MEDICAL REFORM BILL.

To the Editor of the Medical Times and Gazette.]

SIR,—In my humble opinion, the Medical Bill is a very unsatisfactory one. We had been given to understand that it was to be prohibitory of irregular and unqualified practice. It is nothing of the sort. The gentlemen who have composed, or *compojed* (as Mrs. Gamp would say) this Bill, are something like Lord John Russell with the Pope's encroachments. He was the boy who wrote up "No Popery" and then ran away. In point of fact all that was done was to enact an Ecclesiastical Titles Bill, and so leave the real offence against the Majesty of England precisely where it was. Our friends (oh! save us from our friends!) sing out fiercely and lustily "No Quackery!" and then run away, leaving us a bald measure for our protection (?), which is nothing but a Medical Titles Bill. The only prohibition in this Bill is directed against the qualified members of the Profession. We must not continue to practise without paying for the privilege in various ways more or less vexatious; these payments being all supplementary to others which we have all already made; while druggists, bone-setters, herbalists, homœopaths, *et hoc genus omne*, may practise legally every branch of the Profession, free, gratis, and quite unmolested, so long as they don't take our titles. We have a man in this town who drives a very good trade in the bone line; he has a large sign over his door, on which are painted a death's head, and the bones of some extinct animal disposed crosswise, and beneath in large letters:

BROMFIELD, *Bonesetter*.

What do these men care about titles? Any other titles would actually ruin them. Their roses, by any other names than those already selected by themselves, would certainly not smell so sweet in the noses of their patients as they do at present. For the public have a natural longing for the irregular and uneducated—as they have for the supernatural.

We have already one useful prohibitory enactment in the well-abused Act of 1815. It is often complained that the 'Company' do not exercise their powers as they might. But, never mind; it is something to have King Log, so long as he is a real king. The knowledge that such an Act of Parliament is in existence, has an immense moral influence. It is now proposed to repeal it and substitute—what?—a Medical Titles Bill!!! I only hope we shall not, like the poor frog in the fable, have to bitterly regret the deposition of our respectable old King Log.

I am ashamed to say I have signed a petition in favour of this Bill. I had not read it. I took it for granted it would be what was promised us. I am, etc.

Alford, Lincolnshire, March 4, 1856. R. U. West, M.D.

MEDICAL PERIODICALS.—*La Gazette Médicale* states, that we may rely upon the exactitude of the following numbers of the Medical and Pharmaceutical Journals published in the various European languages—In German 58, Dutch 8, Swedish 8, English 38, French 47, Italian 12, Spanish 9. Of the French, 13 are published in Belgium.

LAST month a great dinner was given to M. Ricord by the Physicians of Lyons. Few Physicians have ever been so highly complimented as this eminent Syphilographer.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE Annual General Meeting of this Society was held on Saturday evening, at 53, Berners-street. The chair was taken by the President at eight o'clock, to which hour the time of meeting had been changed, in order, as it was thought, to suit the convenience of the Fellows. The attendance, however, was not very large.

The minutes of the last Anniversary Meeting and the Special Meeting having been read and confirmed,

The Auditors' report was presented.

REPORT OF THE PRESIDENT AND COUNCIL.

The President and Council have the pleasure to report that the condition of the Society continues satisfactory. During the past year 14 new Fellows have been elected, of whom 11 are resident, and 3 non-resident members. In the same period 4 resident, 4 non-resident, and 1 foreign honorary Fellow, have died; 4 Fellows have resigned, and 3 have had their names erased from the list for the non-payment of their subscriptions.

The abstract of the receipts and payments, from March, 1855, to March 1, 1856, is as follows:—

RECEIPTS—ORDINARY INCOME.

	£	s.	d.
Subscriptions, fees, etc.—297 Annual Subscriptions, £935 11s.; 2 ditto arrears, £6 6s.	941	17	0
14 Admission Fees, £88 4s.; 3 Composition Fees, in lieu of further payment, £49 7s.; 1 ditto for transactions, £6 6s.; Fines, 12s.	144	9	0
Transactions—Sale of Vol. XXXVII., etc., by Messrs. Longman (balance), £58 3s. 5d., Sale of former volumes, 16s.	58	19	5
House—Rent of Rooms from "Society for the Relief of Widows and Orphans of Medical Men," £52 10s.; Rent of Stables, £30	82	10	0
Interest—On Stock £2975 7s. 7d. (3 per cent. reduced)	83	13	8
	£1311	9	1
From former Statement, 1855—Balance in hand, £415 13s. 10d.; less purchase of Stock £383 0s. 9d. 3 per cent. reduced, at 91¼, £350	65	13	10
	£1377	2	11
Balance in the hands of the Treasurers	182	0	2

PAYMENTS—ORDINARY EXPENDITURE.

House—Including Rent, £160 per annum, less £9 6s. 8d., deducted for Property-tax, Assessed-taxes, Property-tax, Parochial-rates, and Water and Sewers'-rates	177	15	10
Lighting, Warming, etc.	44	16	7
Repairs	14	5	5
Petty Cash	55	11	0
Stationery, printing Circulars, etc.	49	1	3
Salaries, etc.	171	1	6
Library—English Books purchased, £57 17s. 11d.; foreign ditto, £94 2s.; Bookbinding, £19 14s. 6d.; Insurance, £13 10s.	185	4	5
Transactions, Vol. XXXVIII.	231	19	5
	929	15	5

EXTRAORDINARY EXPENDITURE.

Repairs and Decoration of the Library—Painter's Account, £28 6s.; Upholsterer's Account, £55 12s. 4d.; New Central Light and alteration of Fittings, £7 1s.	90	19	4
Law Expenses	1	1	0
Annuity to Mr. Williams (3 quarters)	60	0	0
Catalogue—Cost of making Catalogue during 1854 (balance)	64	0	0

Purchase of Stock £53 4s. 4d., 3 per cent. reduced, with the amount of Composition Fees (as per contra)	49	7	0
Balance carried down	182	0	2
	£1377	2	11

On former occasions the Council have usually been able to announce that they have added considerably to the invested funds of the Society. This year, however, in consequence of the expense of preparing, printing, and issuing the catalogue ; the repairs, lighting, and ventilation of the meeting-room; and the annuity allowed to Mr. Williams, so small a balance will remain as to preclude any investment, except that already made of the composition fees. The librarians' report that 309 books have been added to the library since the last Annual General Meeting, of which number 134 were presented and 175 were purchased. The Council have great pleasure in announcing that the new catalogue is completed, and will be presented to the Fellows on their written application. The catalogue has been prepared by Mr. Wheatley, under the directions of the Librarians, Dr. Wegg and Mr. Dixon, and the Society is greatly indebted to the latter gentlemen, for the care they have taken to ensure its accuracy and completeness, and for their superintendence of the printing. The preparation of the catalogue has afforded the opportunity of correctly ascertaining the extent of the library, and the Society will be gratified to learn that it contains about 17,000 works. A shelf index, enumerating the volumes as they stand on the shelves, has also been completed, and a new and simpler method of numbering the books is adopted. The Council regret that they have not yet been able to establish the exemption of the Society from the payment of Poor-rates for the house in Berners-street, the Vestry of St. Marylebone having disallowed their claims. They have considered it desirable to obtain legal assistance, and under advice to appeal to a higher tribunal. The Council finding that the order of proceedings of the Society in the election of Fellows was not strictly in accordance with the by-laws, and desiring to afford greater facility for the admission of Fellows, propose that slight modifications be made in by-laws chap. II. sect. 1 and 2, and chap. XVI. sect. 1 and 5. The Council also propose that in future the subscriptions to the Society shall be paid in advance instead of in arrear, as heretofore, so that the subscriptions payable on 1st of March next will be for the year then commencing, instead of for the past year. This change will require alterations to be made in by-laws, chap. V. sect. 1, 3, and 4, and chap. XIV. sect. 2. The Council further suggest slight changes in by-laws, chap. XIII. sect. 2 and 6, fixing the number of members of Council required to be present at the ballot for the publication of papers, and altering the time at which the referees are elected.

The report was unanimously adopted.

In answer to a question from Dr. O'Connor, in reference to the property-tax,

Mr. Curling explained that a sum of £300 had been given for the lease of the Society's house, which had increased the value from £160 to £200 per annum.

Dr. O'Connor contended that the landlady should pay the full amount of tax.

MEETINGS FOR THE ADMISSION OF FELLOWS.

The President having read the proposed alteration,

Mr. Mitchell Henry said it would increase the difficulty of getting Fellows to come and vote, and would give any one who wished to exclude a person from the Society very great power of doing so. At the Royal Society there was only one election during the year. Instead of decreasing the number of elections, he should rather be disposed to increase them.

Dr. Webster very much approved of the proposed alteration. The case of the Royal Society, he said, was not at all a parallel one, because there only fifteen members were annually elected, instead of an indefinite number.

Mr. Balfour asked whether the Council proposed any alteration in the hour.

The Secretary, Mr. Smith, said any amendment that might be made on this point could only be put as a recommendation to the Council, who had the power of fixing the time for the ballot. Most of the alterations proposed had not originated with the Council of last year; the desire was merely to make the by-laws in accordance with the practice, which had hitherto been illegal in these respects.

Dr. Rogers moved, that the time should be from half-past seven to a quarter to nine, and subsequently altered his amendment from half-past seven to eight.

Mr. Norman seconded the amendment.

Dr. Barker could not see the difficulty in keeping up the practice of voting from half-past, seven to half-past eight. In having two meetings going on at the same time, there would be the risk of a large number of Fellows attending the ordinary meeting, without taking the trouble of voting; consequently all their votes would be recorded against every candidate.

After some further discussion, Dr. Rogers's amendment was put to the meeting, and declared to be lost.

Mr. Mitchell Henry then moved,—"That the meetings be held twice a-year, instead of four times, as proposed." He wished to hear some reasons in favour of the change.

Dr. Stewart seconded the motion, and expressed a similar wish.

Dr. Webster explained, that the admissions into the Society would be more numerous, on account of the greater facility which would be afforded to gentlemen wishing to become Fellows. Under the present system, five or six months frequently elapsed before a new member could be admitted.

Mr. Curling and Dr. Barker spoke of the importance of giving every possible facility for admission.

The President put the resolution to the meeting, which was carried *nem. con.*, no one voting for the amendment.

PRESIDENT'S ORATION.

The President commenced with a reference to the prosperous condition of the Society, and the improvements made in the Library, and proceeded to notice the deaths of the following Fellows, which had occurred during the past year:—Dr. Tyshel, of Berbice; Dr. Alexander Russel Jackson, of the E.I.C.'s Service; Mr. Wilson, of Manchester; Mr. Avery; Mr. Joseph Moore; Mr. George Pilchard; and Dr. Chambers. The oration concluded with an interesting parallel between the discoveries of Bell, and Shaw, and Magendie, in relation to the nervous system; the President attributing the greater success of Magendie's experiments to his thorough recklessness of animal suffering.

A vote of thanks was unanimously accorded to the President, for his conduct in the chair during the past year, and more especially at the present meeting,

Dr. Stewart thought that if the hour of meeting had not been changed, he would have had a much larger attendance to hear his admirable address.

The President having returned thanks, the proceedings terminated with a suggestion from Mr. Mitchell Henry, relative to the closing of the Library in September.

ELECTION OF OFFICERS.

The following officers were declared to be elected:—

President.—Cæsar H. Hawkins. *Vice-Presidents.*—*John Webster, M.D., F.R.S.; William Baly, M.D., F.R.S.; *Richard Quain, F.R.S.; Fred. Le Gros Clark. *Treasurers.*—George Cursham, M.D.; Thomas Blizard Curling, F.R.S. *Secretaries.*—Thomas Bevill Peacock, M.D.; Spencer Smith. *Librarians.*—Willam Wegg, M.D.; *John Birkett. *Other Members of the Council.*—*Patrick Black, M.D.; Henry Bence Jones, M.D., F.R.S.; *Alexander Patrick Stewart, M.D.; Theophilus Thompson, M.D., F.R.S.; Charles West, M.D.; James Moncrieff Arnott, F.R.S.; John Erichsen; *Henry Lee; *George David Pollock; *George James Squibb. Those gentlemen, to whose names an asterisk (*) is prefixed, were not on the Council last year.

PAYMENT OF SUBSCRIPTIONS IN ADVANCE.

Several alterations in the By-laws were proposed, the effect of which was to make the subscriptions payable in advance, instead of in arrear, as at present; so that the subscription due March 1 next would be for the year then commencing, instead of for the past year.

Mr. Moore said he had asked an Actuary how the proposed alteration would affect the financial position of the Society, and, from the answer he received, it appeared that it would have no important effect in that respect; and he thought it would do away with the collision between the Council and the retiring members; therefore he wished for the change, although, in the first instance, he was rather opposed to it, thinking it might influence the finances.

The Secretary, Mr. Smith, read the opinion of the Actuary.

After a brief discussion, in which it was contended that the Society would lose one year's subscription from the existing members, the proposition was carried.

THE PATHOLOGICAL SOCIETY.

February 19, 1856.

Mr. Arnott, President, in the Chair.

[Continued from p. 218.]

Mr. Bryant exhibited a specimen of

SOFTENED ANCHYLOSIS OF THE KNEE-JOINT.

The patient was a woman, aged 52, from whom the limb had been removed by Mr. Hilton, in Guy's Hospital. Twenty-seven years she had been under Mr. Key's care in the same Hospital, on account of hydrops articuli. The joint had been fractured by a trocar, and after two years' treatment anchylosis, with very slight movement, ensued. For upwards of twenty-five years the limb was a very useful one, and no relapse of inflammation occurred. Subsequently, however, in consequence of a kick from a cow, the part again influenced the anchylosis, softened down, and, on account of profuse suppuration, it ultimately became necessary to amputate. The specimen showed complete destruction of the articulation; the patella was anchylosed by bone to the femur, and the opposed surfaces of the latter bone and the tibia accurately adapted themselves to each other.

Mr. W. A. Fowler exhibited an

ENCYSTED COAGULUM IN THE CAVITY OF THE ARACHNOID.

The specimen was taken from a woman about 60 years of age; being a dissecting-room subject nothing was known of her history. On the inner surface of the dura-mater, on the left side, was a thin layer of coagulated blood, about 5 inches long, and 3 broad. The free or cerebral surface of this was paler in colour and firmer than the rest, and could be separated as a delicate membrane; beneath this was a jelly-like substance, of a pale reddish colour, with some darker patches, adherent to the serous surface of the dura-mater, and consisting, microscopically, of fine fibrillæ and altered blood corpuscles. There were no external marks of violence on the head, and the brain appeared healthy, excepting that the vessels of the pia-mater were much congested. It was a good example of an early stage of the process by which blood effused into the arachnoid becomes encysted, and which appears to be a change in the blood itself, quite independent of inflammatory action.

Dr. Peacock exhibited a specimen of

IMPACTED CALCULUS, WITH SACCULATED KIDNEY.

It had been removed from a patient of his, a female, 20 years of age, who died of phthisis of upwards of three years' duration, at the Hospital for Diseases of the Chest, Victoria Park. At the autopsy extensive disease of both lungs was found.

The left kidney was converted into a large multilocular sac, the parietes of some of the sacculi being entirely membranous and very thin, and the renal structure being everywhere almost entirely atrophied. The cause of this expansion of the pelvis and calyces was found to consist in a calculus which was impacted in the pelvis, and must, apparently, have nearly, if not quite, closed the entrance into the ureter. The calculus presented the usual dark colour and scabrous surface of the oxalate of lime deposits; it consisted of a body and three projecting extremities, which protruded into the expanded calyces. At the end of one of these projections there was a small mass of phosphatic deposit. It weighed 1¾ drachm avoirdupois when dried. The sacculi of the kidney were distended with a dark-coloured thin fluid. The ureter was throughout pervious. The right kidney was large and vascular, weighing 6½ ounces avoirdupois. The existence of the disease in the kidney had not been suspected during life; but, on inquiry afterwards, it was ascertained that she had occasionally complained of pain in the left iliac region, extending down to the groin. An abscess formed in the groin, was opened and soon healed, five years before. The urine had been examined soon after her admission into the Hospital, and found to be quite healthy.

Dr. Wilks exhibited a specimen of

OVARIAN CYSTS, LINED WITH CILIATED EPITHELIUM.

M. L., aged 33, a patient of Dr. Gull's, in Guy's Hospital, had suffered from an ovarian tumour for one year and a-half; death was caused by peritonitis and fæcal abscess. The tumour was as large as a new-born child's head, and was of that form of disease known as alveolar dropsy, consisting of numerous cysts filled with a gelatinous-like fluid. In the lower part of the tumour, where the cysts were smaller, the disease much resembled colloid cancer, hence the reason why this form is sometimes called malignant. The only interesting feature in the case was the fact that, besides the ordinary tesselated epithelium, which lined the cysts, there arose from the intercellular partitions, numerous microscopic growths, which were covered with a most delicate ciliated epithelium. The case was brought forward for the sake of association with an analogous one, exhibited at the last meeting of the Society by Mr. Athol Johnson, where the testis in a child was converted into numerous cysts, which contained gelatinous material, and which were lined by a similar ciliated epithelium.

Dr. Ogle exhibited for Dr. Bence Jones a specimen of

HORSE-SHOE KIDNEY.

The kidney weighted twenty ounces. It was placed across the lower lumbar vertebræ; its lower convex margin being on a level with the brim of the pelvis. It had two ureters, and three separate arterial branches supplied from the aorta. It was very diseased, being granular, and having its cortex very dwindled. It was removed from a patient of Dr. Bence Jones, aged 56, in St. George's Hospital, a few days ago, who had been in, in 1854, with albuminuria and bronchitis, etc.; the urine being from 1010—15 specific gravity. When readmitted into the Hospital this year the urine was 1024 specific gravity, and contained albumen and casts. He died comatose.

Dr. Andrew Clark reminded the Society that he had exhibited in 1854 a series of specimens of

TUBERCULAR SPUTUM;

that these specimens had been expectorated by an individual still living, during one of a series of attacks of limited chronic phthisis; that each of these specimens contained tubercular matter and lung-tissue; that from the first to the last of these specimens the gradual curative metamorphosis of tubercle could be traced to its final conversion into chalk; and that the subject of these expectorations exhibited none of the physical signs of phthisis, but laboured, apparently, only under irritative dyspepsia. Dr. Clark stated, that he had selected that case simply as a type of many others which had occurred to him; and as a proof of the proposition that phthisis sometimes occurred to a limited extent, and at successive periods, insufficient to produce manifest physical signs, but yet capable of being recognized through a careful microscopic investigation of the sputum. It had been objected by those unaccustomed to investigations of this kind:—1. That where lung-tissue and tubercular matter were confessedly present in the sputum, the disease would be recognized by physical signs; 2. That there was no perfect evidence to show that tubercle and small cavities existed in the cases described; and 3. That the so-called lung-tissue might not really be so. Dr. Clark said, he was prepared to answer these objections, and to furnish the final proof of the truth of his proposition. In answer to the third objection, Dr. Clark stated that, with reasonable experience and skill, the elastic areolæ of the lung could not be confounded with anything else. In reply to the first objection, Dr. Clark detailed the case of a Physician who, in 1847, laboured under obstinate dyspepsia; had no physical signs of pectoral disease, but occasionally expectorated a little dense yellowish matter of a morning. In this matter he detected tubercular matter and lung-tissue. This gentleman was afterwards seen by an eminent Stethoscopist and Physician in London, who found no physical evidence of diseased lung, and prescribed for dyspepsia. Some months afterwards had slight but repeated attacks of hæmoptysis, and finally unequivocal symptoms of phthisis were manifested, of which he died. In answer to the second objection, Dr. Clark exhibited the upper lobes of two lungs containing obsolescent tubercles, a few small cavities, and some puckerings; the whole disease in each lung being evidently inadequate to the production of any definite physical signs. The person from whom these lungs were removed had been under Dr. Clark's care at the London Hospital for dyspepsia; that from the obstinate character of the complaint his attention was directed to the chest; that he found no physical signs of diseased lung; and that only after the patient's attention had been minutely di-

rected to the point, was there any expectoration noticed. This expectoration was yellow, dense, hawked up only at rare intervals, and in small pellets. Six specimens were obtained, of which four were preserved and exhibited. The last contained lung-tissue, tubercular matter, cholesterine, crystals, blood discs, and granular fat. Limited tubercular deposits and small cavities was the inference from these examinations. Some months afterwards this patient was admitted into the London Hospital for disease of the liver and kidney, of which he died. A post-mortem examination revealed in the lungs the appearances then exhibited by the specimens—deep puckerings, a few obsolescent tubercles, one or two contracted, and some small open cavities.

MEDICAL SOCIETY OF LONDON.

Saturday, February 23, 1856.

Dr. Snow, President, in the Chair.

Dr. Thudichum exhibited several sheeps' lungs containing echinococci, together with various microscopical sketches, showing the various stages in the growth of this form of entozoa, and also of the cysticercus.

Dr. Hughes Willshire exhibited the heart of a patient in which the mitral and aortic valves were greatly diseased. The columnæ carneæ and cordæ tendineæ of the left ventricle were greatly hypertrophied, and the walls of the chambers were undergoing fatty degeneration. Slight atheromatous change was commencing in the aorta. The chief points of interest about the case, however, were connected with the nervous centres. The patient, a man about 45 years of age, while sitting in a public house, was taken with what was termed "a fit." Partial, and but very transient, unconsciousness came on, followed by hemiplegia of the left side. He was bled from the temporal artery, which burst open again in the night, so that much blood appeared to have been expended. The next day he was seen by Dr. Willshire, who found him quite sensible, with the left side paralyzed, with no noticeable amount of "contracture." A loud systolic apex bruit was heard, as also a slight one at the base, covering both the normal cardiac murmurs. The action of the heart was quick; the pulse full, but soft, He was ordered into the Hospital; the same evening, but late, he was admitted. Some cathartic medicine was administered, nothing else appearing to be needed before the hour of visit next day. Before this time, however, Dr. Willshire was requested to see him, as a change had taken place. He found him comatose; the right pupil dilated, the paralyzed side now and then affected by convulsive twitches, and the flexors of the fingers in a state of contracture. The heart's sounds were as before, but exaggerated; there was epigastric pulsation, strong pulsation of the iliacs, and femoral, together with a distinct vibratile, rough thrill on the latter. The patient died in about an hour after Dr. Willshire saw him. The diagnosis was disease of the aortic and mitral valves, admitting of regurgitation in the latter; dilated heart; and hæmorrhagic extravasation on the right side of the brain. The microscopic examination showed the diagnosis as regarded the heart to have been correct; as related to the brain, wrong. There was no hæmorrhage, but softening of the parts bounding and forming the right ventricle. Now, the question arose, might a better diagnosis have been formed? The distinction, during life, between the apoplectic form of softening, as it had been termed, and cerebral hæmorrhage, was well known to be often very difficult. In the present case, it was probable the distinction could have been dogmatically affirmed, but still strong suspicion might have been held as to its true character. This statement was based upon the symptoms observed by the gentleman who first saw the patient, and from whom some particulars had been received. In his communication to Dr. Willshire, it was stated, that the left arm was flexed over the chest, and its muscles rigidly contracted, and, when attempted to be raised, the limb became very much convulsed. Now, it will be recollected, that M. Durand Fardel had laid down the following rule of guidance, viz.: when slight apoplectic symptoms coexist with contracture, the diagnosis should be softening, because the fact of contracture existing precludes the idea of hæmorrhage into the substance of the brain alone, and the slightness of the symptoms is incompatible with the idea of ventricular hæmorrhage. Now, the primitive contracture, and but transient, accompanying loss of consciousness, etc., certainly bore out this view. These facts were not known to Dr. Willshire until after the death of the patient.

CURE OF ITCH IN HALF-AN-HOUR BY SULPHUR IN A LIQUID FORM.

Dr. E. Smith called the attention of the Fellows to an article in the *Gazette Hebdomadaire*, by Dr. Bourguignon, in which is a confirmation of the value of the treatment of itch, in Belgium, by sulphur, combined with lime in a liquid form. The remedy is prepared by boiling one part of quick lime, with two parts of sublimed sulphur, in ten parts of water, until the two former are perfectly united. During the boiling it must be constantly stirred with a piece of wood, and, when the sulphur and lime have combined, the fluid is to be decanted and kept in a well-stoppered bottle. A pint of the liquid is sufficient for the cure of several cases. It is sufficient to wash the body well with warm water, and then to rub the liquid into the skin for half-an-hour. As the fluid evaporates, a layer of sulphur is left upon the skin. During the half-hour the acarus is killed, and the patient is cured. It is only needful then to wash the body well, and to use clean clothes. In Belgium the treatment is introduced by first rubbing the body for half-an-hour with black soap, but this does not appear to be necessary. The only essential act is that of the careful application of the fluid sulphur. The lime is of no importance in the treatment, except to render the sulphur soluble, and such would probably be the case if potass or soda were employed. The chief point in the plan thus employed, which is an improvement upon the mode of application of sulphur in substance with lard, is the more ready absoption of the remedy, and consequently the more certain and quick destruction of the insect, by using sulphur in a fluid form. In so disgusting a disease, it must be of great moment to be able to cure it in half-an-hour.

Dr. Routh read a paper on

FÆCAL FERMENTATION AS A CAUSE OF DISEASE.

After some prefatory remarks, Dr. Routh said that authors on the subject of the chemical composition of fæces, differed much. Dr. Routh preferred that of Dr. Marcet, F.R.S. Fæces contained excretive margaric acid, hæmatine and compound of phosphate of lime and animal matter, excretoleic acid and salts. The fæces of animals contained no excretine. From this composition he was led to believe it was in part a secretion, although in the main an excretion, the refuse of food taken. Dr. Routh then proved that in disease or extraordinary circumstances, it was positively secreted sometimes in abundance, but this was not the rule in health. Fæces were liable to fermentation both in and out of the body, the result being the production of poisonous matter. This fermentation was produced by long retention in the passages, and differed in kind from that which led to their original production. Dr. Routh then entered on the theory of fermentation, and showed this poisonous change was one of putrefaction, and reviewed the various circumstances that favoured putrefaction or repressed it. After a rapid sketch of the fermentation, which occurred during the production of fæcal matter in the small and great intestines, Dr. Routh alluded to the changes produced by putrefactive fermentation in fæces. The compounds produced were the same, in part, with those produced in the decomposition of protcine bodies, presenting many points of resemblance to those generated in the putrefaction of sausages, bad fish, or meat, cheese, etc. They were, in great measure, also identical to those produced by night-soil or manure out of the body. The gases were of two kinds—one respirable, the other irrespirable. These he detailed; still, in regard to the solid products generated especially, organic chemistry, so far as he could find, gave no information. Dr. Routh then alluded to the changes produced in fæcal matters by disease; in which they emitted often a very cadaveric odour, this odour being generally present in all low or malarious fevers, the bad kinds of which were often preceded by obstinate constipation. Infection through fæcal matters was of three kinds:—1st. When taken in their natural concentrated, undiluted state. 2nd. After dilution or suspension in water. 3rd. By the absorption of the emanations therefrom in the system. Dr. Routh then entered into the phenomena of infection, which, to be conveyed, required three conditions:—1. An infecting source. 2. A transmitting medium. 3. A fit recipient. The

first, viewed in its effects in different stages of the same and different epidemics; the second might be fluid or gaseous, in the latter case always accompanied with ammonia, which raised by its volatility the poisonous miasma of decomposed fæces to the organs of respiration—the former more readily partaken of in the water drunk in coldish, and, at any rate, dry weather, with a high barometer, the latter in a hot, moist state of atmosphere, with a low barometer. The third condition implied a fit recipient, modified by race in man, specie in lower animals, concentration of poison taken, acclimatization, previous state of health—examples of which he gave. Dr. Routh did not propose to speak of more than the effect of the poison of fæcal matters in their undiluted state, on that night, reserving the effect of the same in water, and by the agency of their emanations, for another evening. The experiments on animals with healthy fæcal matter, gave no appreciable results. These appeared to be harmless. But with diseased matters they had been confined to the cholera evacuations. In their natural state these produced generally no marked choleraic symptoms in the lower animals, *i.e.*, there was an absence of algide symptoms. On the suppression of urine, experimentators were silent. Violent diarrhœic symptoms and vomiting, even death, were, however, produced. This was proved by Dr. Lindsay, and in Mr. Marshall's able review of 1853 on the subject. In a state of putrefaction, actual cholera was produced, according to Thiersch. Yellow fever, it was believed, was produced by stools of yellow fever, so far as we could judge from negative experiments accidentally made. But there were certainly some diseases produced by putrid, fæcal matters retained in the alimentary canal. One variety of puerperal fever, accompanied by mania and delirium, was evidently produced by it. This disease Dr. Routh described. So, also, mania was often generated from this cause in men. The general and the pathognomonic sign in these affections being, that the pulse always fell in frequency immediately after a violent purgation, indeed, markedly so after every motion. He believed many anomalous nervous and feverish symptoms, ephemeral fever, remittent fever of children, were produced by this cause. In all, the motions were fearfully offensive, and the odour cadaveric. In all, the symptoms were removed when the offensive poison in the intestine was got away. The same result was observed after partaking of poisonous food; the symptoms were only removed when violent vomiting and purging had been induced, because the poisonous matters were in both cases in the alimentary tract.

Dr. Richardson, after stating that the President was the first to draw attention to the propagation of disease by fæcal matters, said he agreed with Dr. Routh in thinking that oxygen, when pure, did not produce putrefaction so much as when it was somewhat diluted in nitrogen. He had a piece of beef which had been in oxygen gas for two years, and a piece in chlorine for four years, without having undergone any putrefaction. When a little nitrogen was introduced in such cases, decomposition commenced, and went on increasing till the composition of the atmosphere was attained by the gradual addition of nitrogen; and then, as the proportion of oxygen was decreased, putrefaction also decreased, and when the oxygen was altogether removed decomposition stopped entirely. Nitrogen gas was the best medium for the preservation of pathological structures, and he thought it might be advantageously employed for preserving meat instead of the common vacuum process. He agreed with Dr. Routh in thinking that the fermented agents referred to might be transmitted by the atmosphere. In dissecting-room cholera, which sometimes exhibited symptoms of Asiatic cholera, he could not think that the agent could be swallowed, but that it must be taken in by the breath or skin. Several cases had been recorded in which cholera fæces were swallowed. In 1832, four Physicians tasted the fluids of cholera patients; two of them died in three days, and the others were severely attacked, but recovered. The last report on Yellow Fever at Bermuda proved to demonstration that the epidemic was traceable entirely to the drinking water, much of which was contained in tanks situated in close proximity to cesspools.

Dr. Webster referred to the state of the barometer and the direction of the wind as influencing the speed at which the process of putrefaction takes place.

Dr. Eyres alluded to the generation of vibriones as a concomitant of putrefaction. He said he had never examined putrid animal food, in which he did not find vibriones or their germs. They also very constantly existed in fæcal matters, being, however, mainly confined to the cœcum and the large intestines. Dr. M'Bride had recorded a curious experiment with reference to the acceleration of putrefaction by the addition of a putrefied substance. He dipped a piece of thread, one-tenth of an inch long, into some fluid taken from putrefied beef, and then placed it in a vessel containing a piece of veal, in some water; another vessel, contained another piece of veal cut from the same meat, also in water, to which no addition of putrefied liquid was made. In the former case, the veal became putrid in a few hours, while in the latter, the meat remained a considerable time without putrefaction. In the one case the ferment was added, in the other it had to be generated. He did not think that there was any peculiar principle in the fæces; and his own observations had led him to believe that none of the intestinal mucus was excreted, except that which was secreted by the rectum, to facilitate the expulsion of the fæcal matters. A considerable quantity of fluid was secreted in the small intestines, and in the cœcum, but this was absorbed as it passed onwards, none of it appearing in the fæces. The acidity, or alkalidity, of the contents of the intestines depended, not upon the quality of the secretions, but upon the nature of the food. If the food was purely vegetable, the contents would be acid throughout, or at most neutral; if animal, the contents would be alkaline.

Dr. Camps did not think that retained fæces were so productive of disease as had been suggested; the odour emitted by persons in certain conditions, being, as he thought, attributable to other causes.

Dr. Hare said, there could be no doubt that in various diseases the intestinal secretions appeared in the fæces.

Dr. Eyres said, he referred to healthy fæces, not to fæces as affected by disease or medicine. In the latter case, the contents of the intestine were hurried onwards, so that there was an excretion of the secretions.

The author then replied, and the Society adjourned.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

JANUARY 17, 1856.

(Communicated by the Hon. Secretary.)

THE third meeting was held this day when there were 26 members present. Dr. Williams having been called to the chair, said—

"Gentlemen, I am much obliged for the honour you have done me, and wish I was better calculated to fill the position in which you have placed me; it is most gratifying to see so many strangers here to-day, and still more so to have the pleasure of meeting our allies, the French and Sardinian Medical Officers. We have to-day Medical Officers of these great nations, whose union has physically been already nobly cemented by heroic deeds, and may we not hope that mentally the same union may produce a vast amount of benefit. I believe that in no Profession can more good be produced, or truth eliminated, than in ours, by the interchange of thought, comparison of practice, and statements of facts, tending to elicit truth, and drive away empiricism; and the presence here of our allies, evinces a wish on their parts to join us heartily in our endeavours.

The proceedings of the previous meeting were then read, and several Medical Officers, were elected Honorary Members.

Dr. Bowen, Coldstream Guards, then read a case of frost-bite, and exhibited the morbid specimens of the hand affected: the patient had been on sentry for two hours, holding a bayonet without gloves, on the night of December 19, 1855, when the thermometer fell to 4° below zero; there was complete death of the fingers; gangrene set in, and the phalanges of the right hand were removed, and the left amputated at the wrist. The case was brought forward in consequence of a difference of opinion among the Medical Officers of the regiment, first as to operating at all, and second as to the amount of the limbs to be removed. Dr. Brown is strongly of opinion, that as the patient's health was sinking, and he was suffering from diarrhœa, the operation was called for, and the state of the parts rendered it necessary to operate where it was done. The patient is now doing well.

Dr. Wyatt, in reply, stated that the question resolved itself

into three general issues:—1. The nature and pathological condition of frost-bite. 2. The different primary and secondary local effects produced. 3. The treatment necessary to be employed. Extreme cold, long applied, destroys vitality without the precedence of inflammatory action, but it predisposes to gangrene when violent inflammatory reaction precedes the deprivation of vitality; the pathological effects of cold have not yet been properly elucidated. His opinion, founded on experience, is, that gangrene after frost-bite is allied to the humid or to the dry form of sphacelus, according as it has been produced, by direct application of cold, or from secondary action. In mortification from cold, the effect being produced, the removal of the cause is impossible; and he is therefore of opinion, that the line of demarcation should be awaited, and ulcerative action between the dead and living parts be fully developed, and then nature should be assisted. There was great difference between the disease this and last winter, from the then general constitutional debility of the patients. He considered that amputations should be avoided, but where necessary, we should injure the living portions as little as possible. In referring to the case, it was of importance to know that the man suffered much pain at night, showing, he thinks, that nature was resisting the injury, and setting up "disjunctive ulceration." The question, therefore, for the Society, was whether sufficient time had been given after the line of demarcation had set in, and amputation being decided on, whether more of the structures of the hands might not have been saved. He then exhibited sketches of the present state of the hands, and of what he considered they might have been.

Dr. Williams said, it should be remembered that conservative and operative Surgery were very different branches, and that he was a strong advocate for conservative Surgery; the knowledge and practice of conservative Surgery was never so far advanced as it has been by this army; and, with reference to Dr. Bowen's remarks, that we should not operate in cases of frost-bite, when the patient was also suffering from dysentery, he is of opinion that we should.

Dr. Sall had served in Newfoundland, and had much experience of frost-bites; the practice there, in which he agreed, was to leave as much as possible to nature.

Dr. Taylor mentioned the distinctions between gelatios this and last winter, when they arose from wet and long-applied cold, while the men at the same time were suffering from fever or dysentery; he mentioned some severe cases he had seen; this was a peculiar case, and he is of opinion that we should wait until the line of separation is fully established, and then assist nature in removing the dead parts only.

Dr. Bowen considered that Messrs. Guthrie and Fergusson had been wrongly quoted, and mentioned the opinions of Baron Larrey and Mr. Lawrence. Severe frost-bites (in Poland) were generally when the temperature was changing from cold to thaw; recent experience shows that when a line of demarcation is set up it is the duty of the Surgeon to remove the part. Mr. Guthrie recommends the immediate removal of the parts, and all the schools, whether at home or abroad, recommend the early removal,

Mr. Barry read three cases, in one of which both feet were purple to the instep, the toes almost black, the right leg tense, œdematous, and painful up to the knee; the usual early treatment of rubbing with snow, and then with cold water, was followed; but it was necessary to make free incisions in the leg and instep as in a case of phlegmonous erysipelas, which was followed by immediate relief. He will only lose the great toe and last phalanges of the two next toes, but if an operation had been performed it would have been necessary to have performed Chopart's operation; the two other cases were somewhat similar. He considers them good specimens in confirmation of conservative practice and to establish the doctrine of non-interference.

Dr. Blenkins had seen many cases of frost-bite, both in Canada and here, and looking at the preparation, hoped it would lead to improved practice, and, although no politician, was certainly a conservative in Surgery. If the Medical Officers of this army deserve credit for anything, it is for their anatomical knowledge, as proved by their conservative Surgery, which has never been equalled. Speaking abstractedly, we must gain much information from this case being brought before the Society. We are too apt to mix up gangrene and mortification with frost-bite. His experience and opinion is to wait until a perfect line of demarcation is formed. He then mentioned a very severe case he had seen in Canada, where a man had been frost-bitten to above both knees, which case proved fatal in a few days. The treatment in Canada was to wait for the line of demarcation, in both sick and healthy cases. Last year many cases died of gelatio who had dysentery. Considered that a considerable portion of the hand might have been saved, and he illustrated by several cases the great importance of saving even the smallest portion of the hand or foot; was sorry to hear the remarks on Mr. Guthrie, who was a Leviathan among us young practitioners, and if he had been in our present position he would have been of our conservative opinions; considered three such cases, as mentioned by Mr. Barry, as of more importance than the mere opinions of authors. He must again repeat, wait for the line of demarcation to be fully formed, and then, if necessary, operate.

Dr. Bowen begged distinctly to be understood that he does not condemn Mr. Guthrie as an authority in frost-bite, but he does not refer to it in his book (Commentaries); the preparations show a more favourable appearance than previous to the operation.

Dr. Blenkins then referred to the anatomy of the hand, and Mr. Herbert showed his left hand, of which he had lost portions of the second and third fingers, but the remaining portions were of the greatest use to him, Mr. Trotter had seen the case: the stench was intolerable, and diarrhœa, and loss of appetite had set in; considers the patient would have died if left to nature.

Mr. Ovens had some experience last year, that when the textures were deeply engaged, and left to nature, the cases were very fatal, but many cases last year proved fatal from their complication with either diarrhœa or scurvy.

Dr. Woodsworth asked, whether we should amputate at all in cases of frost-bite; he would wait for the line of demarcation to be fully formed, and then only operate if absolutely necessary.

Dr. Bowen was still of opinion that the treatment in this case was the best that under the circumstances could have been adopted.

Dr. de Santi (French) stated that in the French Army they wait for the line of demarcation to be fully formed, and only amputate as a last resource; their experience is against amputations, on account of the great mortality in such cases, and the liability to gangrene.

Dr. Riolacci (French) said, that secondary operations wre generally necessary when amputations for frost-bite had been performed.

Dr. Williams considered, that the opinions were not so much opposed as might at first appear, but that frost-bite should be considered both as a local affection, and when complicated with other diseases. He then proposed the thanks of the meeting to Dr. Bowen.

Mr. Thornton, in seconding the proposal, said, that Dr. Bowen well deserved their thanks for bringing before the meeting such an interesting case, and one that was so open to difference of opinion; by the discussion on it they had all gained much practical information; it was by bringing forward such cases that the true benefits to be derived from the Society would become apparent.

Proposition carried.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

December 7, 1855.

Mr. Martyn in the Chair.

Mr. Thomas C. White read a paper

ON THE PROXIMATE CAUSES OF DENTAL CARIES.

Adverting briefly at the outset to the importance of the teeth, and the necessity of their preservation to secure health to the individual, as well as the physical well-being of the human race, the author insisted upon the duty that devolved on Medical men, of investigating these diseases, and exposing the causes which tend to produce consequences so wide-spread, and destructive of the beauty of the human face. He then stated caries to be the most frequent of all diseases affecting the teeth, amounting to 88 per cent. of all others, and should consequently engage a large share of our attention. He then proceeded to glance at the structure of a tooth that has been normally developed, describing in succession the enamel, the

dentine, the cementum, and the pulp cavity; remarking upon the minute structures and their supposed uses as he passed along. He next contrasted the appearance and structure of an imperfectly developed tooth, the rough and honeycombed enamel, discoloured and deposited in chalky ridges, the dentine, abounding in irregularities and cells of all kinds, as well as rather extensive canals running throughout the bone. In proceeding to speak of the causes of dental caries, Mr. White considered, with the best authors, that the structural defects just alluded to strongly predisposed to caries; although he was unable to point out the precise mode in which these states conduced to it; saving that such defects were found to exist most frequently among those of scrofulous constitution. Such defectively formed teeth, then, in which the lime appears to have been irregularly deposited, leaves its substance more pervious to the fluids of the mouth; besides which, the lime might be deficient in quantity, and more susceptible of change from the action of the saliva, which, under some circumstances, acts as a solvent. Remembering, also, that the saliva will sometimes show the presence of both an acid and an alkali, in a state of imperfect neutralization; that the quantity of lime contained in a tooth is very small; and the length of time over which the destructive action spreads; and that the defects and cavities referred to, form so many recesses into which this acid may penetrate and remain, it was safe to conclude that defective formation was an important agent in the production of caries. Passing on, the author discussed in succession the various states of "ill health," observed in patients suffering with dental caries—indigestion, sympathetic ailments, as neuralgia and others—and fortified his opinion that the teeth were greatly under constitutional influence, by reference to experimental and physiological observation. The author also expressed his belief in the hereditary influence, and cited some curious instances. Certain trades, again, tend to produce caries; of which grocers and lucifer match-makers were examples. Certain localities, especially damp ones, and those where the drainage was faulty, appear to be among the causes, and also mechanical violence. Of the teeth most liable to become affected, the first molars appeared to occupy the highest place, and those of the upper jaw very usually were the first to decay. The "wisdom teeth" were often evolved in an unsound state. The popular idea of the contagiousness of caries, was met by the explanation, that the apparently successive decay of adjoining teeth was due to the pressure of one tooth against another, caused by the upward and forward growth of them. For if such teeth were examined at an early period, long before caries had manifested itself, a round chalky spot might be noticed, caused by the crumbling of the enamel fibres, beneath the firm and steady pressure exerted upon them. This opens the dentine to attacks of acid and other irritants, and sphacelus is the result. Having thus discussed many and various causes of dental caries, and contrasted the frequency of the disease in civilized society, with the immunity enjoyed by man in his savage state, no less than that of the lower animals; the author was impelled to the conclusion that "it may in great measure be attributed to the artificial mode of living in a civilized state, which brings on a morbid condition of the fluids, resulting in impaired nutrition." The treatment must, of course, vary with the states and circumstances of the disease. In the incipient state from pressure, the removal of the affected enamel and polishing the surface was recommended. Where, on the contrary, the disease had proceeded so far as to excavate the substance, the sooner the cavity was cleaned out, and stopped with gold or amalgam, the better. When the caries has progressed to such an extent that the dentine is soft and yielding, the slightest pressure causing intense pain, stopping is inapplicable, and recourse must be had to escharotics. Of these, perhaps the most efficient was a combination of oxyde of arsenic with acetate of morphia, mixed into a paste with creosote. This gives slight pain for about two hours, after which it ceases, and the tooth can then be stopped and made serviceable for some time. The practice of indiscriminate extraction, the author declared to be unwarrantable.

The *Moniteur* publishes a decree ordering a census of the population of France to be taken, under the superintendence of the Mayors, during the course of the present year.

Small-pox, dysentery, and fever, prevail on the Amazon to a fearful extent.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW SURGEONS.

Chorlton.—At a meeting of the Medical Officers of the Chorlton Union, held at the Union Offices, February 26, 1856: present—Messrs. Hatton, Kirkman, Allen, Midwood, and Greaves, it was resolved, *nem. con;*—1. That the thanks of this meeting be tendered to R. Griffin, Esq., of Weymouth, for his exertions in the cause of Poor-law Union Medical Reform. 2. That the Medical Officers of this Union do form themselves into a local Association, for the attainment of this desirable object; and that Mr. Greaves be requested to act as Honorary Secretary and Treasurer. 3. That a subscription of 5s. per quarter be paid by each member of the Association. 4. That this meeting, without pledging itself to details, approves generally of the main principles laid down in Mr. Griffin's circular. 5. That a copy of these resolutions be sent to each of the weekly Medical Journals, and to Mr. Griffin.

Northleach, Gloucestershire.—At a meeting of the Medical Officers of the Northleach Union, held on February 27, at the King's Head, Northleach, it was resolved:—1. That we are of opinion no payment per case will be satisfactory, unless a distinction be made between thickly and thinly populated districts. 2. That the rates of payment for Midwifery cases should be fixed according to distance, a guinea being the minimum beyond two miles. 3. That the Art. 177, in the Consolidated Order, should embrace a greater number of accidents, as many giving a great deal of trouble are omitted,—such as fractures of the clavicle, ribs, pelvis, and skull. 4. That a representation should be made to the Poor-law Board, that some remuneration ought to be allowed to the Medical Officers for the trouble and inconvenience they are subjected to in granting certificates of the cause of death, such certificates being considered absolutely essential by the Registrar-General, for a correct statistical return of the cause of death, and can only be obtained through the Profession in such form as to be relied on. 5. That this meeting is of opinion that the most satisfactory mode of payment, in thinly populated and agricultural districts, will be by an increase of salary in proportion to the extent of area. 6. That Mr. Redwell be appointed Local Secretary; and that a subscription of 5s. quarterly be paid, if required, to defray any incidental expenses. 7. That the thanks of this meeting are due to Mr. Griffin, for his exertions on behalf of the Union Medical Officers.

MEDICAL NEWS.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, February 28, 1856:—

Chattaway, Allen G., Llanygunollo, Radnorshire.
Coombs, William Godwin, Winford, Somersetshire.
Elphick, William, Burnham, Essex.
Farncombe, Richard, Bishopstone, Sussex.
Goldsbro, Charles F., Welshpool, Montgomeryshire.
Jones, Walter, London.
Nason, John James, Nuneaton, Warwickshire.
Procter, John Ward, Iron Bridge, Salop.
Sims, William, Southampton.

DEATHS.

Anderson.—February 29, at 7, Harley-street, after a long and severe illness, Sir James E. Anderson, M.D., Edin. and Trinity College Dublin; M.R.C.P.; Physician to the Mariners' and General Insurance Company; M.R.I.A.; formerly Physician to the Viceroy of Ireland. Author of an "Essay on Jaundice," 1828.

Bonastre—Member of the Academy of Medicine at Paris.

Cowley.—February 28, at Winslow, Bucks, where he had resided 63 years, John Cowley, Esq., M.R.C.S.E., aged 78. Much respected and deeply lamented.

Estor—Professor of Operative Surgery at the Faculty of Montpellier.

PATTERSON.—March 2, John Duggan Patterson, Esq., of the General Register Office, Somerset House, late an Inspector at the General Board of Health, aged 50. M.R.C.S.E., 1825; L.S.A., 1824.

PETIT—Director for a great many years of the Mineral Springs Establishment at Vichy.

RICHOND DES BRUS — Corresponding Member of the Academy of Medicine of Paris, author of a copious work on syphilitic diseases.

SMITH.—February 25, at Craigforth House, Stirlingshire, Thomas Smith, Esq., late Physician-General Hon. East India Company's Service.

APPOINTMENTS.

SOUTHERN AND TOXTETH HOSPITAL LIVERPOOL.—Edward C. Garland, M.R.C.S., Eng., L.A.S., and L.M., has been elected House-Surgeon in the room of C. Royston, resigned; and William Townsend, M.R.C.S., Eng., L.A.S., to be Junior House-Surgeon, in room of Edward C. Garland, made House-Surgeon.

SIR JOHN FORBES, M.D., of London, was on Saturday the first instant, unanimously chosen Dean of Faculty, by the Senatus of Marischal College and University, Aberdeen. We believe Sir John is an *alumnus* of this College.

IT will be seen by our advertising columns that Mr. James Bird is a candidate for the office of Registrar, under the New Medical Reform Bill, in case that measure should pass into a law. Under the present very doubtful aspect of the Medical Reform question, it is impossible to predict the passing of the Bill, and certainly not in its present shape, but in case of an authorized Registration of the Medical Profession being ordered by Parliament, (and to such a scheme we can see no possible objection,) we know no gentleman who, from his antecedents, would more completely receive the suffrages of the Profession, than Mr. Bird, whose efforts in behalf of enlightened Medical Reform, and whose long and arduous services in the cause, have gained for him universal esteem and approbation.

DR. EDWARD BALLARD, of Myddelton-square, has been appointed Medical Officer of Health to the district of St. Mary, Islington. Dr. Ballard's distinguished abilities eminently qualify him for the office to which he has been elected.

GUY'S HOSPITAL BIENNIAL FESTIVAL.—The gentlemen educated at Guy's Hospital dined together at the London Tavern, Bishopsgate-street, on Tuesday, the 4th instant. The Chair was taken by John Birkett, Esq., F.L.S. He was supported by the Presidents of the Royal College of Physicians and Surgeons, the Master of the Society of Apothecaries, the President of Guy's Hospital, Sir Benjamin Brodie, Professor Owen, Mr. Propert, etc. Several other visiters, and about two hundred gentlemen, some from distant parts of the country, formerly and now students at Guy's Hospital, were present. After the usual toasts, "Success to the Medical School of Guy's Hospital" was responded to with enthusiasm, and, in reply to appropriate toasts, the company was addressed by Dr. Paris, Mr. Lawrence, Mr. Griffiths, Sir Benjamin Brodie, Mr. B. Dobill, Mr. Propert, and several of the visiters and Medical and Surgical Staff of the Hospital. The musical arrangements for the evening's entertainments were under the direction of Mr. George, and Mr. Harker acted as toastmaster.

UNIVERSITY OF KIEL (Duchy of Holstein):—There are 134 Students, of which number 24 are Students in Theology, 44 in Laws, 41 in Medicine, and 25 in Philosophy. The ordinary and extraordinary Professors are 45 in number.

CONVALESCENT HOSPITAL.—Among the other works erecting under the auspices of the French Emperor, is a Convalescent Hospital for the working classes, situated in the midst of the Bois de Vincennes.

BRITISH MUSEUM.—Though the official forms are not complete, we believe there is no doubt that Mr. Panizzi will succeed Sir Henry Ellis as Principal Librarian to the British Museum.—*Globe.*

DR. O'SHAUGHNESSY has received orders to proceed to Calcutta, *en route* to England and America, whither he is to go in order to perfect himself in telegraphic matters as carried on in other parts of the world.

NEW MEDICAL REFORM BILL.—Petitions were presented on Wednesday, by Mr. Dent, from Surgeons of Knaresborough; by Mr. E. Ball, from Wisbeach; and by Mr. C. Foster, from Walsall, in favour of the Bill.

UNIVERSITY OF BERLIN.—During the winter session there have been 1509 Students: 253 in Theology, 652 in Laws, 261 in Medicine, and 343 in Philosophy.

THE LONDON HOSPITAL.—TESTIMONIAL TO MISS NIGHTINGALE.—On Wednesday, a quarterly general court of governors was held at the London Hospital. The Duke of Cambridge (president of the Institution) occupied the chair. The report showed that the receipts during the quarter were £4186 18s. 1d., making, with balance brought over from preceding quarter, an available total of £5793 14s. 10d. The total expenditure was £5353 6s., leaving a balance in hand of £440 8s. 10d. The number of in-patients during the quarter was 909, of whom 513 were cured and 323 relieved, while 73 died. The number now in the Hospital was stated to be 319, and the number of out-patients 3002. The report having been adopted, Mr. Leonard Cumming (one of the vice-presidents) moved a resolution in grateful acknowledgment of the services rendered to the cause of humanity by the efforts of Miss Nightingale to mitigate the sufferings of the British troops in the East, and tendering to her the staff of a life governor in the Hospital in cordial recognition of the generous and self-denying principle which had induced her to refuse any recompense for exertions and sacrifices almost without a parallel.

THE MURDER-MANIA.—In the Central Criminal Court, on Monday, the Recorder, in charging the grand jury, said,—It seemed that it was the same in the history of nations as of individuals, that there were certain periods of great calamities without any apparent traceable cause. During the last twelve months, after having for forty years enjoyed the blessings of peace, they had been familiarized with all the horrors of war; and there was no doubt that, during the same period, the most heinous crimes had been committed by persons of high station, by persons also holding a high position in the commercial and banking community, and also by persons in a more humble position of life, and in this court there had certainly been a most unusual number of cases involving the destruction of human life. It was no part of his duty, or that of the grand jury, to enter into any consideration of the cause that had led to this state of things, and whether it arose from any peculiar circumstances in the state of the country, or of the law; but the subject was one that was entitled to grave reflection.

THE DISCOVERER OF GUTTA PERCHA.—The President of the India Board, Mr. Vernon Smith, has placed on his list of military nominations for November next the son of the discoverer of this inspissated sap of an Indian tree, by which we are able to know in five minutes' time what transpires in Crim-Tartary, 3000 miles off. The discoverer was Dr. William Montgomerie, of the Indian Medical service, and this only in the year 1845, although many of the countries producing the article have been in European occupation for above 300 years. The mode in which the discovery was made is worth mentioning. Dr. Montgomerie observing certain Malay knife and kris handles, inquired the nature of the material from which they were made, and from the crude native manufacture inferred at once the extensive uses to which the gutta percha might be put in the arts of Europe. He purchased a quantity of the raw material, sending from Singapore part of it to Bengal and part to Europe, and suggesting some of the uses to which he fancied it might be applied. The quantity sent to England secured to him at once, as the discoverer, the gold medal of the Society of Arts, his sole reward, until the President of the India Board, on no other ground whatever than his discovery, liberally bestowed his patronage on his son.

Thomas Ansell, M.D., F.L.S., a member of the Court of Examiners of the Society of Apothecaries, has been elected Medical Officer of Health, for the Bow district of Poplar Union; also S. K. Ellison, Esq., for Poplar.

THE PARISH OF ST. PANCRAS AND ITS LUNATIC POOR.—At a general meeting of the Directors and Guardians of the poor of the Parish of St. Pancras on Tuesday, an official letter from the Secretary of the Commissioners in Lunacy was read to the Board. It was accompanied by a report by Mr. Gaskell, one of the Commissioners in Lunacy, upon his recent inspection of the wards appropriated to the insane and

idiotic inmates of St. Pancras Workhouse, and the Directors were urged to attend to its recommendations without delay. Mr. Gaskell's report disclosed a lamentable state of disorder and neglect as prevailing in the wards inspected. He speaks of them as much overcrowded and dirty. In certain wards which were in a former report described as inconveniently crowded when there were 13 men and 16 women in them, there are now 21 men and 45 women. Eight patients are unprovided with beds; two men slept on beds placed on the forms, and two on the floor of the padded room. The report expresses regret that previous suggestions of the Commissioners have been utterly disregarded. The report after detailing numerous evils existing in the insane wards of St. Pancras Workhouse, concludes by drawing attention to the following, which they recommend:—1. That no recent case of insanity be detained in the workhouse. 2. That chronic cases on whom restraint or seclusion are imposed be removed to an asylum. 3. That the number of inmates in the idiotic wards be forthwith diminished. 4. That more means of exercise and occupation be provided, and that a larger number of patients be allowed to attend divine service. 5. That a bath be supplied to the women patients. 6. That better means of washing be provided for the men, and a larger supply of towels and sheets for both men and women. 7. That suitable beds to prevent bed sores be purchased. 8. That better means of cleansing soiled bedding be adopted, and a larger number of bed-ticks be supplied. 9. That the wire-work be removed from the windows in the men's ward. 10. That the women be supplied with suitable books. After the presentation of the report, it was resolved to appoint a committee of five members, to inquire into the grounds of its allegations. A letter was also read from the Poor-law Board, urging the directors of the poor to lose no time in giving effect to the measures necessary to remedy the serious evils shown in Dr. Bence Jones's report to exist at St. Pancras Workhouse.

Royal Free Hospital.—Memorial to the Duke of Sussex.—The Sussex Wing of the Royal Free Hospital, the foundation-stone of which was laid a few months ago, is now nearly finished, and it is intended to be opened on June 18 next, in grand masonic order, under the presidency of Lord Leigh, Provincial Grand Master of Warwick. The new wing is completely roofed in, glazed, and floored, and presents a very handsome appearance. The wards are six in number; they are very spacious, and will contain 135 beds, in addition to those already existing, and are furnished with every necessary sanitary requirement. A very improved plan of ventilation has been observed throughout the whole of the wing. In order to finish the wards, considerable responsibility and labour will fall on the weekly board, which will, no doubt, be lessened by the active aid and co-operation of the benevolent and wealthy.

Mortality in Scotland.—During the month of December there were registered in the eight principal towns of Scotland, 2716 births, of which 1418 were males, and 1298 females; 2043 deaths, of which 1011 were males, and 1032 females. Allowing for increase of population, this would give at the annual rate of one birth in every 25 one death in every 34. The births thus exceed those registered during November by 313 the deaths by 393. Of the 2043 deaths, 888, or 43 per cent., were under 5 years of age. The proportions for the different towns were, Paisley, 34 per cent.; Edinburgh and Aberdeen, each 38 per cent.; Perth, 40; Glasgow, 43; Leith, 49; Dundee, 51; and Greenock, 54. The causes of this constant very high mortality among children in Greenock, deserve special investigation. The deaths from the zymotic class of diseases in the eight towns constituted 27 per cent. of the total mortality. The prevalence of certain epidemics caused this proportion to vary in the different towns. Thus in Paisley the mortality from this class of disease constituted only 21 per cent. of the total deaths; in Glasgow, 23 per cent; Aberdeen 25; Edinburgh, 28; Greenock, 31; Leith, 32; Perth, 33; while in Dundee, the proportion rose to 36 per cent. of the total deaths. Small-pox is still on the increase in Dundee, where it has now assumed the form of a virulent epidemic, finding numerous victims among a population, where, it is to be feared, the neglect of vaccination leaves thousands exposed to its ravages without protection.

Meteorology.—The mean reading of the barometer for the month of December, at the Observatory Ordnance Office, Edinburgh, was 29·639 inches; the mean of the morning readings being 29·648, and of the evening, 29·631. The increased mortality during the month has, therefore, been attended with a diminished atmospheric pressure. The range of the barometer was 1·413 inches,—the highest reading, 30·147, occurred on the evening of the 18th, the lowest 28·734 occurring on the evening of the 26th. The mean temperature of the month was 37°·6, and the range 26°·5,—the highest temperature, 49°·4, occurring on the 15th, the lowest, 22°·9, on the 22nd. The mean daily range of temperature was 7°·6. The mean temperature of the dew-point was 32°·3; that of evaporation, 35°·7; the elastic force of vapour, ·191; and the mean degree of humidity, ·811. Rain or snow fell on 13 days, and the quantity which fell amounted to ·97 of an inch. The prevalent winds were from the south-west and west.

Mortality Notabilia.—The total number of deaths registered in London last week was 1029. Of these, 529 were deaths of males, and 500 of females. The return is satisfactory, as tested by experience; for it is less by 221 than the average number of deaths (corrected for increase of population) in the ten corresponding weeks of the years 1846-55. Phthisis, as is usually the case, produced a greater number of deaths than any other disease, and was fatal in 136 cases. Bronchitis carried off 95 persons; and pneumonia numbered 62. Hooping-cough prevailed to some extent, and 60 children died of it. Of 52 deaths from typhus (including continued fever), 17 occurred in the North Division, which contains the London Fever Hospital, 14 in the East, 9 in the West, 8 in the South, and 4 in the Central Division. Typhus is frequent in Bethnal-green.

Births.—The births of 1002 boys and 974 girls, 1976 children, were registered. Average, 1575.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	6	3	10	3	9
North	490,396	4	..	4	11	1	17
Central ..	393,256	1	6	3	6	..	4
East.....	485,522	2	2	3	19	..	14
South	616,635	5	3	11	14	2	8
Total..	2,362,236	14	17	24	60	6	52

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, March* 1, 1856.

Causes of Death.	In the Week ending Saturday, March 1, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	Mean temp. ° 43·8						° 40·8
All Causes	1029	459	143	171	186	43	1136·4
Specified Causes	1001	458	143	171	186	43	1127·3
Diseases:—							
1. Zymotic Class	203	150	19	17	16	1	216·7
2. Dropsy, Cancer, and others of uncertain seat	52	7	5	19	17	4	46·7
3. Tubercular Class	173	56	65	43	9	..	185·2
4. Of Brain, Nerves, etc. ..	122	52	11	19	32	8	130·8
5. Of Heart, etc.	47	4	12	15	15	1	43·7
6. Of Respiratory Organs ..	185	88	8	24	56	9	249·8
7. Of Digestive Organs ..	58	25	6	14	11	2	64·8
8. Of Kidneys, etc.	17	..	6	6	5	..	14·0
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	1	2	3	1	..	9·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	13	4	2	4	3	..	7·4
11. Of Skin, etc.	2	1	..	..	1	..	1·9
12. Malformations	2	2	..	..	..	..	3·0
13. Debility from Premature Birth, etc.	29	29	..	..	..	..	26·3
14. Atrophy	17	11	..	..	6	..	28·6
15. Age	26	..	..	..	9	17	58·7
16. Sudden	15	11	..	2	2	..	9·5
17. Violence, Privation, etc...	33	17	7	5	3	1	30·5
Causes not specified.. ..	28	1	..	..	..	..	9·1

ORIGINAL LECTURES.

CLINICAL LECTURES

DELIVERED AT

Charing-Cross Hospital.

By HYDE SALTER, M.D.

Lecturer on Physiology and Pathology at the Charing Cross Hospital Medical School, and Assistant-Physician to the Hospital.

Lecture II.

ON HÆMORRHAGIC DIATHESIS.

Definition of Hæmorrhage—Varieties and Classification—Its essential Condition—Pathology of Diathetic Hæmorrhage—Cases—Treatment—Summary.

Gentlemen,—The case which I have selected for my lecture to-day, is that of Katherine Corsbie, in bed No. 9 in the Middle Ward, and I have chosen her, although a solitary case of the affection she is suffering from, rather than others of which I have several examples under my care, partly because she is so far recovered as to be leaving the Hospital in a day or two, and so will soon be lost to us, and partly because her disease is one of which we do not often see a well-marked specimen in the wards of a Hospital. This disease is a peculiar constitutional disposition to bleeding, giving rise to all sorts of spontaneously-occurring hæmorrhages, which has received the name of the *hæmorrhagic diathesis*.

Hæmorrhage—the escape of blood from the channels that normally contain it—is a condition so common in its occurrence that you must all be familiar with it, so instructive in its teachings that you cannot be too intimately acquainted with its indications, and so momentous in its results that you cannot be too well prepared to meet and control it. It essentially consists in the escape of blood from the sanguiferous vessels, no matter how it escapes or where it escapes to. It is just as much hæmorrhage if it never leaves the body as if it is discharged free, as blood. *How* it escapes, *how much*, and *whither*, are not essential to the definition; simply *what* and *whence*.

Thus defined, hæmorrhage appears to be of three kinds:—

1. Hæmorrhage from mechanical injury, in a body in all other respects healthy.

2. Special local hæmorrhage resulting from some special local diseased condition.

3. General hæmorrhage, primary and idiopathic, itself the morbid state.

The first, frequently called Surgical hæmorrhage, is not strictly pathological; the hæmorrhages of operations and accidents are examples of it.

Of the second, in which the disease giving rise to the hæmorrhage may be at the part where the hæmorrhage takes place, or remote, and may be, or not, of a nature to destroy the integrity of the vessel, we see examples in the *hæmatemesis* of ulcer of the stomach, the *hæmoptysis* of phthisis, and the *malæna* of interrupted hepatic circulation.

Of the third, the case before us is a good example.

With respect to the vessels in which this hæmorrhage occurs, this last kind is capillary; the first is not capillary, and the second may be or not, the difference appearing to depend upon whether the diseased condition giving rise to the hæmorrhage is at the point where the hæmorrhage occurs, or in some part remote from it.

But, perhaps, the classification characterized by the most philosophical simplicity would be the division of all hæmorrhages into two kinds—those which are *local*, caused by some special mischief at some part, and those arising from a *general* condition, affecting the circulatory system primarily. Thus—

Hæmorrhage.	Local, and secondary to	*a.* Mechanical injury.	*Accidental.*
		b. Special disease	*Pathological.*
	General, idiopathic and primary		

At any rate, under either arrangement, the last is all that we have to do with.

I am anxious, Gentlemen, that you should have strict and correct general views of disease to start from—that your clinical studies should have a pathological character; I will, therefore, detain you for a few minutes while we inquire what is the essential anatomical condition of hæmorrhage.

Without doubt it is *rupture of the wall of a sanguiferous vessel*; to express it generally, and without implying laceration or violence,—a solution of its integrity. This is absolutely necessary.

Now, I insist upon this, and wish to impress it strongly on your minds, because of late years, and even now, I am sure, in the minds of many, very erroneous and uncertain notions exist with regard to the mechanism of hæmorrhage. The escape of blood is described by writers on this subject to take place in two ways—by *rupture* and by *exhalation*. The great apostle of this doctrine was Bichat, who, recognizing the fallacy of the old notion, that hæmorrhage depended on the rupture of a vessel of recognizable size, rushed into the opposite extreme, and denied the necessity of any rupture whatever. This notion, which was at once adopted, and has been received up to the present time, Bichat attempted to prove thus:—he says, that if the menstrual discharge depended on the simultaneous rupture of innumerable minute vessels, the cicatriculæ of these ruptured vessels would be visible; that, on pressing the inner surface of a menstruous uterus, and wiping away the minute drops of red fluid that escape from it, the membrane whence they flow appears to be perfectly entire; that on examining, with the microscope, the surfaces of the bronchi, the stomach, the intestines, or the uterus, according to the nature of the case, of persons who had died from hæmorrhage, he never could detect the slightest appearance of erosion. In support of this theory, Dr. Watson adduces these additional facts,—that in some well-authenticated cases an actual cutaneous hæmorrhage occurs, in which a dew of blood appears upon some portions of the skin, is wiped away, and re-appears, with no perceptible alteration of the affected surface; that in intermittent hæmorrhages occurring at short intervals,—many times in a day, for instance,—the wounds in the vessel must, if they were ruptured, heal and re-open at every change; that certain hæmorrhages are preceded and followed by an increased efflux of the fluids which belong to the surface concerned—mucus, serum, or sweat. "There seems," concludes Dr. Watson, "no more necessity, under the action of disease, for a rupture of vessels to give exit to the blood than to give exit to these fluids. What the vessels or outlets to which we give the name of exhalants really are—how they are distributed and arranged—in what manner they are connected with the ordinary capillary circulation of red blood—or under what influences they are placed—are points concerning which we have no certain knowledge. We know, indeed, that such channels must exist, though we cannot demonstrate or see them; and that, while the health is entire, they do not allow the blood, as such, to pass through them."

All this proceeds from an imperfect textural anatomy. We know that it is impossible, physically impossible, for blood to escape from capillary vessels without their rupture, and we know it from the consideration of the parts concerned—the capillary wall, and the blood globule. For, in the first place, we know that capillaries have no natural apertures, that they are unbroken tubes of a hyaline, homogeneous, transparent, elastic membrane, through which we cannot imagine any solid particles to escape, any more than we can through a piece of glass. No such thing as a natural aperture has ever been seen in a capillary; its existence would be directly inconsistent with the structure, development, and function of the part. In the second place, we know that blood globules, which exist unchanged in the blood of hæmorrhage, are cells of definite size and shape, incapable of transuding an imperforate membrane, or of solution, except by their destruction. Given, blood globule within capillary wall, and blood globule without capillary wall, the essential link for the connexion of the two conditions is, the rupture of the one for the passage of the other. The transudation of the walls of the capillaries by serum, or even liquor sanguinis, (fibrine dissolved in serum,) is a very different thing; the exhaled material here is entirely fluid, it transudes the membrane by the force of osmosis; the process is *physical*; whereas, the escape of a blood globule is *mechanical*. This is just the difference between dropsy and hæmorrhage.

This exhalation theory of hæmorrhage, itself an immaterial error, acquires an importance from the fact, that on it are based certain incorrect views with regard to the fundamental nature of hæmorrhagic cachexia. The capillaries being supposed to be entire, the physical quality of the blood has been assigned as the sole condition determining its escape. In the

blood, and in the blood alone, it is said, the pathological state begins and ends; the disease is humoral, and in no way anatomical. But the acceptance of the doctrine of the necessity of vessel-rupture drives us to adopt an entirely different explanation of the essential and immediate pathological condition of diathetic hæmorrhage, and to define it as a *morbid friability of capillary wall.* And so it must be. The capillaries give way when they should not, they rupture under the slightest force, or when, apparently, no stress whatever is put upon them, and at the points where they have given way the blood globules and liquor sanguinis escape. We see, therefore, that it is proximately a *textural* disease, and that its special morbid anatomy is *ruptured capillary.* But, as in all other cases, the ultimate anatomical lesion cannot be the essential disease; it is merely its result: the *point de départ* from the condition of health must be higher up. What makes the capillary membrane unduly friable? It must be some vice in its nutrition, whereby it loses some of its normal physical properties—its toughness, and power of resistance. And on what does this vice of nutrition depend? Here we are met by two possible explanations:—one, that it depends on a quantitative or qualitative deficiency in the blood of that particular plastic material on which the capillaries draw for their nutrition; the other, that the blood being in no way divergent from the normal standard, the deficiency resides in the capillaries themselves, that their nutritional affinities are debased, their plastic power depressed, and that thus they fail to form from the healthy material presented to them for their recrement the proper quantity or proper quality of tissue. Of these two theories, the first is the one I am disposed to adopt: it seems to me the most simple, the most plausible, and the most probable. All *diathetic* textural degenerations with which I am acquainted are blood diseases—primarily humoral. We may, probably, never detect what this specific peculiarity of the blood is, any more than we may in *struma*, or *cancer;* but it is not the less theoretically probable. If, then, I were asked, what is the essence of the *hæmorrhagic diathesis*, I should say, that it consists in a vice of assimilation issuing in a special spanæmia, the blood being poor in that particular material from which the capillaries—perhaps homogeneous membranes generally—derive their nutriment. We know that the relations between the blood and tissues are infinitely subtle, and delicate, and complex, and there seems to me nothing far-fetched or imaginative in such a theory.

The view that the disease consists essentially in depressed assimilative power, is confirmed by the circumstances that produce and aggravate it:—deficient or bad food, overwork, cold, damp, and darkness, irregularity of life, and exhausting excesses, are its most fruitful causes; and old age, the time of life characterized especially for failure of the assimilative powers, is the time in which it is most pronounced—indeed a special form of it, known as *purpura senilis*, has received its name from this very circumstance. That the spanæmia is *special* not *general*, that the blood is poor in some particular material, and that it is not a general poverty, we are sure, because we know that, even in extreme cases, the general nutrition may be unimpaired, all the other tissues well nourished, and because we see that there are only certain people in whom the disease can occur; that in some any source of depression will bring it on at once, while in others you may have starvation, exhaustion, and depletion, almost to death, and a condition of the extremest general blood poverty induced, (as for instance after protracted illness, or in women by flooding,) and yet not the slightest disposition to capillary hæmorrhage.

Such being the pathology of the disease, let us see what are its symptoms, as illustrated by the following case:—

Katharine Corsbie, aged 50, of middle stature, florid complexion, and tolerably full habit, presented herself among the out-patients of this Hospital, July 27. She is married, and has had two children, who died fifteen and thirty years ago, respectively; she ceased to be regular about eighteen months since, but the menstrual discharge has recurred, off and on, two or three times. As long as twenty years ago she remarked that the slightest blow, or any violence whatever, would produce the mark of a bruise, and an undue lividity of the skin; even grasping her arm lightly would produce marks of the fingers, black and blue. Whether she had any of the livid marks when she was quite a child she cannot tell, but ever since she first noticed them they have gradually increased; in all other respects her health was good, and she was always regular. I should mention that she menstruated at 12 years of age, but the discharge has always been scanty, lasting not more than two days, frequently only one; when the menstrual flux first became irregular, eighteen months ago, she did not notice any difference in the bruised marks. Thus the hæmorrhage does not appear to have had the slightest trace of vicarious character about it at any time.

About three months ago she first noticed that the livid marks came on parts that she knew had not been bruised, and which from their situation could not be, and that first excited her attention, and made her think there must be something amiss. These spots varied from the size of a bean to that of an egg; they came gradually, so that she could not tell when they first appeared, and as they became more distinct, they also gradually increased in size. At first they appear as a dusky clouding under the skin of a dingy blue, the colour then deepens till it gets quite black, then it turns off green, then brown, finally fading away of a tawny colour; from the different hues accompanying different stages of neighbouring spots, or different portions of the same, some parts of the surface have a variegated, almost iridescent, look. The outline is always indefinite, and the first colour is always *blue.* The patient describes the spots as having a "core," and they are a little raised; as the colours die away they gradually flatten down, and lose the sense of hardness; they exist all over the body, the soft as well as the hard parts; the thighs are covered.

At the same time that she first observed the bruise marks come of themselves, she also remarked the appearance of little red specks, which at first she thought were flea-bites, but she soon found them to be too numerous, too universally scattered over the surface, and too large for that supposition. Soon after this—a few days—she came to me, and her appearance at once showed that both kinds of spots were due to the same cause, and arose from a hæmorrhagic condition of the vessels of the skin. The appearance of the surface was very peculiar and striking; the large livid patches were scattered here and there on the trunk and limbs, and the smaller specks covered every part thickly, like a rash. These last—genuine *purpura* spots—varied in size from a pin's point to a pin's head; they had each a definite outline, were all round in shape, and occurred in patches; they first appeared on the chest, shoulders, arms, and legs, then on the trunk where they are much fewer, and only lately have made their appearance on the face. These small hæmorrhagic spots are first a tolerably bright red, then a reddish purple, then purple, and then blue; finally they die off in the same variegated tints as the larger ones.

The points in which these two kinds of spots differ from each other, are—

Size.
Colour.
Definiteness of outline.
Escape of blood.
Shape.

All these differences point to a different situation, in which the effusion of blood takes place. In the case of the large livid patches, beneath the cutis into the sub-cutaneous areolar tissue; in the purpuric specks, superficial to the cutis, raising merely the cuticle,—the one sub-cutaneous, the other sub-cuticular. And *how* do their differences in the above-named particulars depend upon, and therefore indicate, this difference in anatomical situation? Thus:—First. *Size.* The blood that escapes beneath the cutis finds its way into a loose areolar tissue, into the meshes of which its passage is almost unimpeded, and thus the extravasation acquires a large size before the resistance of the distension is sufficient to put a stop to a further escape; and in those situations where the areolar tissue is the laxest, the ecchymoses are found to be the largest; whereas, the intimacy of the attachment of the cuticle to the cutis is such as to stop the sub-cuticular hæmorrhage almost at the moment of its occurrence, and so the spots are small. *Colour.* We know that the blue colour of veins is due to the dark red blood which they contain being seen through the skin; the blue colour of the large spots is due to the same cause; but, the smaller specks having nothing between them and the eye but the semi-transparent cuticle, the colour of their blood is hardly perceptibly modified, and is at first dark red. The *definiteness of outline* is due to the same cause, the sub-cutaneous patches have the softening and shading effect of the interposed skin; and, moreover, at their

confines the blood permeates the areolar tissue more sparingly, and, apparently, becomes diluted with the serous fluid normally present in this situation; whereas the little subcuticular hæmorrhages end *sharp*, and this sharp outline is not concealed or softened off by the clear cuticle. *Escape of blood.* Their difference in this respect hardly needs explanation; it is simply this,—that the force of the hæmorrhage is never equal to the rupture of the cutis, but it is sometimes to that of the cuticle; and thus, from the superficial specks the blood sometimes escapes, (and in the head often and abundantly,) but from the sub-cutaneous never. When I say *never*, the sequel will show that I must make some exception. *Shape.* The small superficial spots are circular, because the force of resistance—the adhesion of the cuticle to the cutis—is equal in all directions, and we know that a force equally resisted on all sides gives rise to a symmetrical result; whereas, the escape of blood into sub-cutaneous areolar tissue is generally freer in one direction than another, and so, extending most in that direction where the escape is the least resisted, the patch becomes of irregular shape.

When I first saw this patient, this bruised and speckled condition of surface was all that was the matter with her; she had no hæmorrhage elsewhere. About two months ago, (a fortnight after she first came to me,) she noticed that her gums and mouth were bleeding; she found that she had frequent occasion to spit, and that the saliva was stained a deep red; this increased till what she spat appeared like pure blood. The bleeding from the mouth lasted two days, and then entirely disappeared. Four weeks after this it came on again, but instead of going away in two or three days, as it had before, she found to her surprise that it increased. From that time to this it has gone on increasing, and the woman affirms,—and she seems quite veracious, and gives evidence of many points of character that make her trustworthy,—that she spits in a day and night two quarts of blood; besides this, she saturates several handkerchiefs, and she says the bed-clothes and pillows in the morning are "smothered" with blood, and her hands as if she had been at a butcher's shambles, from clearing out with her fingers her mouth and throat. She hardly dares go to sleep, and, if she does, her mouth and throat quickly become filled with congealed blood, with which she is soon so choked that she is obliged to wake up to clear it away: to do this, she passes her fingers round her cheeks and alveolar arches, inside and out, and brings away a cast of her mouth in a firm clot-like black-currant jelly. Last night she did not go to bed at all, the hæmorrhage was so abundant that she feared to, and since five o'clock this morning (seven hours) she has spit a quart of apparently pure blood. But suppose that this is half saliva, and suppose that all that she spits, and believes to be pure blood, is half saliva, one cannot estimate the whole quantity in twenty-four hours at less than a quart of blood. As a result of this violent hæmorrhage she is rapidly getting weaker, feels faint and incapable of exerting herself, and requires something to support her every hour.

Her appearance is very unsightly,—her mouth and teeth clotted with blood, from which she is constantly freeing them, her handkerchiefs and fingers bloody, and all the parts of her body that are visible livid with discoloured patches, and thickly sprinkled over with red and purple specks and spots.

I cannot find evidence of any other hæmorrhage than the cutaneous, and that from the mucous membrane of the mouth; she has never had hæmatemesis, and although she spits, after coughing, mucus with a little blood intermixed, yet she thinks, and probably correctly, that the blood in this case comes from the mouth and throat. There is no hæmorrhage from the bowels; the motions are never black, and none from the genito-urinary organs or passages.

When I first saw her, nearly three months ago, I ordered her sulphuric acid and iron, and, as her bowels were rather confined, I gave her an aloes and iron pill every night; from that time till yesterday I lost sight of her, in consequence of leaving London for a short time, and when she made her appearance again yesterday at the Hospital I found her with the additional symptom of the hæmorrhage from the mouth. I find she has been taking much the same medicine as I ordered her—acid and iron—but, as the event shows, with hitherto little advantage.

Two days before she came into the Hospital, I ordered for the mouth an alum lotion, to be frequently used; the lotion to be cooled with ice before using it, and scraps of ice to be frequently put into the mouth. I further ordered her to take internally, three times a-day—Aluminis gr. xv., acid. sulph. dil. ʒss., dec. cinchon. ʒiss.

The aloes and iron pill I ordered to be continued, as the bowels still required it. Finally, I begged her, if possible, to come into the Hospital, that she might be under more energetic treatment, and have this oral hæmorrhage, if possible, arrested.

Such is the history of the case which I took the day before the patient came into the Hospital; for, the next day, October 16, she followed my advice, applied, and was admitted.

Let us now, assuming as granted the pathology of the disease as I have above enunciated it to you—that it is a special spanæmia or blood dyscrasis, issuing in the deterioration and debasement of a special tissue—inquire what our treatment ought to be. It should, in my opinion, involve these three things:—

1. The supply of an abundant and generous diet, rich especially in those alimentary principles which are plastic or tissue-forming; that is, those belonging to the albuminous group.

2. The administration of such medicines as increase and invigorate the powers of assimilation, and, therefore, of healthy sanguification, either through the nervous system, or by appealing immediately to the organs of digestion;—such are tonics.

3. The arrest and prevention of hæmorrhage, by using all available means of stopping bleeding, and by the exhibition of local and general anti-hæmorrhagics.

The last is the treatment of symptoms; the first two, of the absolute pathological condition; the last is directed to the arrest of a drain, by the continuance of which, and the consequent impoverishment of the blood, the disease becomes self-supporting, and by which, in fatal cases, it ultimately exhausts the patient; the first two, to the production of a fabric of good quality by the supply of a good and abundant raw material, and by increasing the efficiency and working power of the fabricating machine. Two elements of this threefold treatment—the first and the last—are absolutely necessary. Unless the standard of the food is kept up the blood must suffer; we see how efficient a debased food alone is in producing capillary hæmorrhage, in the allied disease of *scurvy;* and unless the drain of the hæmorrhage is stopped the blood cannot recover itself, for its most precious elements thus draughted away are replaced principally by water, and are themselves slow of recrement; to give food and medicine without stopping the bleeding, is, to use an expressive vulgarism, like "saving at the tap and letting out at the bung-hole."

It was with these principles in view that I treated the case, and its subsequent history is told in a few words:—

When she came in, which was on October 16, I ordered her to take, three times a-day, the following draught—Acid. gallic. gr. v., acid. sulph. dil. ♏. xx., dec. cinchon. ʒiss. I put her on full diet, and gave her, in addition, a mutton chop, two or three eggs, and a free supply of milk daily.

The report of the 18th is:—Not so well; the bleeding from the mouth profuse; the teeth clogged and clotted; several handkerchiefs saturated; one large ecchymosis on the tongue, black in colour, and covered only by the epithelium, as big as a sparrow's egg, and several smaller ones—the smaller ones seem to have their seat in the fungiform papillæ. She was ordered, for neuralgic pain in the course of the sciatic nerve of the right leg, a liniment, of equal parts of lin. opii and lin. camph., to be rubbed in night and morning.

19.—The mouth still bleeding freely, the patient very much exhausted, flushed face, feverish, and restless. Ordered—Ol. terebinth., to be freely applied to the mouth three times a-day, with a sponge.

22.—The turpentine has completely stoped the hæmorrhage from the mouth. A large ecchymosis formed during the night, as big as an egg, in the loose areolar tissue beneath the left tendo-Achillis, from which she lost half-a-pint of blood. The spots of both kinds are scattered as thickly over the body as ever, covering the entire surface with patches and specks of all colours. Very little sleep; pulse weak and rapid. Ordered—Acid. sulph. dil. ♏ xx., ferri sulph. gr. iv., magnes. sulph. ʒss., inf. calumb. ʒiss.; to be taken three times a-day. The liniment to be continued, and the following pill to be taken every night, to secure some sleep—Morph. hydrochlor. gr. ⅓, extr. lactuc. gr. iv.

23.—No improvement. The turpentine has lost its efficacy. More bleeding from the heel. A good deal of bleeding from the scalp on combing the head.

24.—Better. The bleeding from the mouth has nearly ceased.

27.—The hæmorrhage from the mouth has quite stopped, and without any local application; tongue, cheeks, and gums clean. The spots beginning to fade away and no fresh ones appearing. Appetite good; manages all her diet well.

29.—Looks better; no bleeding. Skin getting clear.

30.—Report the same.

November 2.—Much better; no more fresh spots. Skin nearly clear.

5.—Still improving; gaining strength. A few spots still left. Eats, drinks, and sleeps well.

This closes the report. To-morrow she will leave the Hospital, with not only the symptoms relieved that threatened her life when she came in, but with such a clear skin as she says she has not had for twenty years. She seems hardly to know herself without her discoloration, and is as proud of being without spots and patches as the beauties of Charles the Second's court were of being covered with them.

I think she owes her great improvement to her high living and the tonic medicine, especially the iron; you will observe that it was within two days after commencing to take 12 grains of sulphate of iron a-day she began to improve. She has taken that ever since, and she must continue to do so. She attributes, herself, the cessation of the hæmorrhage to taking black-currant jelly; but my own opinion is that it had nothing to do with it, but that she happened to take some when the iron was beginning to tell upon her. On leaving she will have to take great care, and to continue the same diet and medicine, in order to avoid relapsing into her former condition (a). I do not consider her *cured*. I do not think such a case admits of cure, in the strict sense of the word; the state is diathetic,—a part and parcel of the individual; it will be liable at any time to recur, and any source of depression may reinduce it; but it is, for the present at any rate, most efficiently controlled.

On watching the gradual disappearance of petechiæ and vibices under the administration of such medicines as mineral acids and iron, the question naturally suggests itself to one's mind: How do these medicines act as anti-hæmorrhagics in such a case as this; how do they check capillary hæmorrhage? Do they act merely as tonics and favour the production of a less friable capillary wall by improving assimilative power, or as general styptics also? I believe the former and not the latter. I believe the circumstances of the case render it impossible that they can act as styptics. We know that great dilution destroys styptic action; that acids no longer act as styptics when neutralized by alkalis. I think it, therefore, impossible that the anti-hæmorrhagic action of such a medicine as sulphuric acid for instance, introduced in doses of a few drops in a dilute condition into from 20 to 30 pounds of blood containing carbonate and tribasic phosphate of soda, and permanently alkaline, can have anything styptic in its *modus operandi*. Iron has clearly the additional advantage of supplying an essential material.

Some time ago a case came under my notice of the sudden and rapidly fatal occurrence of this condition in an old lady residing in the country. She was 70 years of age, a cachectic flabby-looking woman, but at the same time, up to within a week of her death, she appeared to enjoy a good amount of physical vigour, indeed above that of most people of her age, was *débonnaire* and sprightly,—a *young* old woman. The circumstances that immediately preceded her illness were, great mental depression, anxiety about money matters, and consequent loss of appetite. Her first symptoms were weakness and listlessness, and the first evidence of the hæmorrhagic tendency was a large ecchymosis, resulting from a slight blow that under ordinary circumstances would have produced no visible impression. This was speedily followed by the occurrence of similar ecchymoses in various parts of the body, some of which could, and some of which could not, be referred to a similar cause. At first there were very few petechiæ, the discolorations consisting about entirely of the bruised blotches. Her entire illness lasted about six or seven days; during the first half of this time she was able to be up; during the last, she was confined to her bed. Within the last three days the petechiæ made their appearance, and were concurrent with the occurrence of blood in the urine and stools; the hæmaturia rapidly increased, till the urine became extremely dark, opaque, and thick,—almost black; the last few stools were nothing but black blood. While this was going on her physical powers were rapidly declining, and about the end of the fifth day she became drowsy, but never profoundly comatose, as by rousing her she could be made to answer questions, which she did coherently though scarcely audibly, up to within six or seven hours of her death; in fact, her condition was rather an apathy than a lethargy. Within the last twenty-four hours of her life the blood began to escape from her lips and all parts of her mouth; there was one large ecchymosis in the substance of the lower lip, and the tongue was almost black from an infiltration of blood in the entire papillary structure. She was now one uninterrupted mass of petechiæ and large blotches of extravasation, some of them considerably raised, and some covering an area as large as an egg. She was bleeding profusely in every way,—the whole integumentary surface, ears, mouth, lungs, bowels, and urinary organs, and thus within a week she bled to death. I forgot to say that her expectoration was early stained with blood, which clearly came from her lungs. Within the last few hours of her death, on the sixth or seventh day, she became comatose, and in that state she died.

On making the post-mortem examination the inside of the body was found just like the outside; every organ—heart, lungs, liver, kidneys, stomach, bowels, bladder—all either full of blood or extravasations. The kidney was the only organ that was examined microscopically, and for the account of that I am indebted to my brother, Mr. James Salter. Here it was found that the hæmorrhage had a relation to the ultimate structure of the gland, the Malpighian capsules and the tubes being full of blood; each Malpighian body was a distinct and separate point of hæmorrhage; in fact, the hæmorrhage appears to have taken place in the Malpighian capillaries, and to have escaped from the capsules into the tubes. The kidneys were the subject of cystic disease, and many of the tubes exhibited moniliform bulgings filled with blood; indeed, some of them were just like beads.

The diathetic character of this disposition to hæmorrhage was well and curiously shown in a family consisting of the parents and eight children, resident in the country, with whose history I was intimately acquainted. The mother was a thin-skinned, light-complexioned woman, with a colour having the hæmorrhagic diathesis to a very marked degree, which displayed itself in her by her having nearly fatal hæmorrhage after every childbirth, and to which, in the form of apoplexy, she ultimately fell a victim. The father was a remarkably healthy man in all respects. The offspring of these parents, about eight in number, were clearly divided into the father's children and the mother's children; and so much did those who resembled their mother in their light and florid complexion resemble her also in their hæmorrhagic tendency, that they were always collectively called, by the friends of the family, "the bleeders," in contradistinction to the other children who resembled the father. In each and all of them the slightest wound, the cut of a finger even, was followed universally by a continued hæmorrhage, which sometimes lasted many days; they were also liable to bruises on the slightest injury. On the occasion of one of them fracturing his thigh the amount of internal hæmorrhage was enormous.

The most curious part of the affair was, that each of these "bleeders" had been the subject of rheumatic fever, and neither of the others; the eldest of them, in fact, is utterly and permanently disabled by repeated attacks of it; in all other respects these "bleeders" were perfectly healthy, and were neither delicate nor ill-grown.

It will be found that the females of families who possess the hæmorrhagic diathesis will be subject to flooding after their labours. A gentleman who came to my brother the other day from Worcester, on account of hæmorrhage, which had

(a) Since delivering this Lecture (three months ago) I have seen this patient constantly. On the whole, her skin has been perfectly free from spots, but has had a few of both sorts when for a day or two she relaxed in her diet, or left off her medicine. She never lived badly, but, through the kindness of her friends, she is now living better than ever—what may be called *high*—meat twice a-day, and plenty of eggs and milk. She comes most punctually for her medicine, (the same mixture of October 22,) feeling that she cannot do without it; indeed, I doubt if she will ever leave it off. The value of the dietetic part of the treatment is shown by the inefficacy of the tonic when she was living indifferently, before coming into the Hospital; the value of the tonic is shown by the immediate appearance of the spots when she leaves it off.

lasted a week, from the socket of a tooth which had been extracted, told him that all three of his married sisters had suffered from most alarming flooding after childbirth, and that his little boy, from the most trivial accidents, had sustained prolonged and almost irrepressible bleeding. I have this day seen a woman, who three days ago lost three quarts of blood in thirty-six hours, from the extraction of a tooth, who tells me that, at the birth of all her children, she has had alarming floodings. My brother tells me that he believes, that in all cases where obstinate hæmorrhage follows the extraction of a tooth, the bleeding depends on hæmorrhagic tendency, and not on the injury of a large vessel. Persons who suffer in this way once are liable to again; the gentleman who came to my brother from Worcester had had a week of hæmorrhage on another occasion. Some persons dare not have out a tooth, but are obliged to bear the aching, and let their teeth crumble away as they will; and many cases are on record, in which the extraction of a tooth has been attended with fatal results; where, in spite of the most judicious and vigorous treatment, in spite even of the actual cautery, the patient has bled to death. In one case, recorded I think by Sir B. Brodie in the Medico-Chirurgical Transactions, the lip was slightly cauterized accidentally, and the bleeding of this was equally obstinate, and contributed to hasten the fatal catastrophe.

Let me now, in conclusion, just briefly recapitulate the points that I would particularly press on your attention :—

1. That the disease is a disease of nutrition,—a special error in assimilation, resulting in a special structural lesion; that, although there are some forms of it that would make one think that it depended on some special vice of nutrition in the minute sanguiferous vessels themselves, as, for example, where it occurs in florid, well-nourished, and otherwise healthy subjects, yet that there are other considerations that tend to throw back the starting-point of the mischief to an earlier stage of the process of assimilation, and to imply that it takes its origin in an imperfect sanguification. That the specialty of the nutritional vice, and its restricted locality, in no way contravene the view that throws so far back, and on the general medium of nutrition, the origin of the textural degeneration; for we know that, even in health, the relations between special local nutritions and special blood elements are infinitely complex and infinitely delicate, while in disease there seems no limit to the specific structural derangements dependent on specific pathological conditions of the blood,—witness skin diseases. The circumstances that induce us to throw on primary assimilation the onus of the mischief, are :—

α. That the causes that aggravate the disease are those that impair sanguification.

β. That the evidence associating the hæmorrhagic tendency with a condition of blood below par seems indisputable.

γ. That the diathetic cachexies with which it is associated are those depending on specific primary mal-assimilation, *e.g.*, rheumatism.

(With regard to the physical condition of the blood associated with the hæmorrhagic tendency, we must not forget that the hæmorrhage itself gives rise to a condition of blood below par, and thus that its watery condition may hold the place of a result, and not a cause.)

2. That the pathological condition is anatomical, and the special morbid anatomy, *ruptured capillary*.

3. That it cannot be explained by a mere qualitative derangement of the blood, an imperfect coagulation, or anything of that sort, as no change of the blood's qualities can explain the transit of blood cells through healthy capillary wall.

4. That the disease is eminently diathetic, the symptoms that show it being,

α. Length of time—the symptoms being sometimes manifest throughout the entire life of the individual.

β. Inheritance—a circumstance invariably involving diathesis.

γ. Association with other diathetic conditions, as complexion, and diseases of undisputed diathetic character, *e.g.*, rheumatism.

5. That, however, as shown by the second case I have narrated, the diathesis may either be latent through a long life, and developed by external agencies, a fact not at all inconsistent with its diathetic nature—witness struma, gout, rheumatism; or, secondly, that it may be acquired late in life; or, thirdly, that sources of depression and exhaustion may give rise to idiopathic hæmorrhage of exactly similar character, without any diathetic hæmorrhagic tendency.

6. That any source of depression will aggravate or induce it—witness the frequency of purpura among the London poor of the worst kind.

7. That it increases with age, age probably acting as a depressant.

8. That it is a disease for which we possess no specifics; that all we can do is to arrest blood-loss, and to supply the conditions of healthy assimilation by an abundant and generous diet and the administration of tonics; that the most valuable of these is iron.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

MEDICAL RECORDS OF THE CRIMEA.

By GEORGE SAUNDERS, Esq.,
Staff-Surgeon.

127 Invalids of different regiments landed at Portsmouth on November 15, 1855: of whom 76 were from Balaklava; 15 from Scutari; and 36 from Malta. No casualty occurred during the voyage. The diseases under which these men laboured were as follow :—Fevers, 5; diarrhœa, 3; dysentery, 15; wounds, 64; other diseases, 40.

The 64 cases of wounds comprehend 18 amputations, viz., 2 at shoulder-joint, 7 of arm, 5 of forearm, 1 of hand, 2 of leg, and 1 of ankle-joint, and 1 case of excision of the elbow-joint. All these cases did remarkably well, as regards the condition of the stumps, though sloughing appeared in a few instances during the voyage. The general dressing employed was lint, saturated with a strong solution of the liquor sodæ chlorinatæ and water. While this application tends to prevent the appearance and progress of sloughing ulceration, it preserves the atmosphere from the influence of putrid exhalations; two things essentially to be remembered in the treatment of wounds and injuries, especially under the circumstances of limited space, and imperfect ventilation.

It is remarkable to what extent the human body can suffer the most frightful mutilations without life being extinguished, thus leading the experienced Surgeon to cling to the hope of a recovery, even in the worst of cases.

Private John Ward, 23rd Fusiliers:—8th September, at the attack upon the Redan, a bullet entered the right side of the neck, one inch below the lobe of the ear, and passed out at the right cheek, and fractured the ramus of the lower jaw. Half-an-hour after the receipt of the first wound, another ball struck the right arm close to the shoulder-joint, and passed out behind the middle part of the right clavicle.

Sergeant James Graham, 7th Fusiliers:—8th September, at the Redan, a bullet passed through the mouth, fractured the upper jaw and palate-bones, and carried away two molar teeth. The hæmorrhage was very considerable during the first four days, and from partial closure of the mouth, the man, up to the day of his landing in England, had not been able to take solid food.

Private Samuel Johnstone, 2nd Battalion Rifle Brigade :—8th September; Redan; bullet injury. Left eye destroyed, without damaging the lids, followed by partial closure of the mouth, and imperfection of speech.

Private William Parsons, 30th Regiment:—8th September; Redan; a bullet entered the nose at the inner angle of the right eye, and came out just above the left eye-brow; the left eye completely destroyed, followed by considerable suppurative inflammation, and unsightly protrusion of lids, etc.; has partially lost the sense of smelling and hearing.

Private Henry Medgwick, 2nd Battalion Rifle Brigade :—8th September; Redan; a bullet passed obliquely through the right orbital region from above and within, downwards and outwards; the eye and lids destroyed, with fracture of orbital bones. The injury, therefore, presents a very ugly appearance; the man has partial deafness of right ear, and partial closure of the mouth.

Private Henry Peacock, 30th Regiment:—8th September;

Redan; skull fractured at the vertex by the bursting of a shell; several pieces of bones have been removed; the man has constant pain in the head, with some dimness of vision, and partial deafness.

Private John Hayes, 57th Regiment:—18th June; Redan; a bullet passed between the bones of left leg, and lodged close to the fibula; the bones were splintered, and the ball was not cut out till eighteen days after; the wound is now (15th November) open, and discharges offensive matter. The limb is at present useless, but promises to do tolerably well under the circumstances of the case.

Private Robert Couzins, 77th Regiment:—9th June, in the trenches, a grape shot struck the right forearm, so shattered the bones that amputation was performed just below the elbow; the same shot entered the right side, fractured the crest of the ilium, extensively damaged the walls of the abdomen, with protrusion of the intestines, and came out close to the great trochanter of the right femur. From the beginning the case was unfavourable; the bowels were constipated for the first fortnight; there is stiffness of the right hip-joint, and the cicatrices are both extensive and deep; the disfigurement of the parts is very considerable.

Private John M'Guire, 31st Regiment:—11th July, the left elbow-joint was fractured by the bursting of a shell; excision of the joint was performed; the forearm is perfectly useless, indeed an encumbrance; and the man would have preferred amputation of the limb.

Private David Marshall, 72nd Highlanders:—28th February, in the trenches, a bullet passed through the right wrist; the part has healed, but there is stiffness of the hand to a very great extent.

It may be satisfactory to state, that every possible comfort was enjoyed by the invalids on board the steamer, Arabia, during the voyage from Malta to England, which was performed in seven and a-half days.

In order to have the transport of sick and wounded efficiently conducted, an ambulance corps should be organized, with superintending officers, possessing qualifications of a scientific character, and competent to construct ambulances, and hospitals on land, as well as on board of ships.

The Medical Staff Corps should be exclusively under the control and discipline of the Medical Officers, having for its head, or Commandant, an Inspector, or Deputy Inspector-General; its Adjutant, a Staff-Surgeon; and its Paymaster, a Purveyor; thus forming it into as distinct a corps as the Artillery or Engineers. The Medical Officers of Regiments would, by such an arrangement, be available for temporary duty at General Hospitals in the rear according to the exigencies of the service.

TWO SUGGESTIONS RESPECTING EXCISION OF THE KNEE-JOINT.

By JONATHAN HUTCHINSON, Esq.
Surgeon to the Metropolitan Free Hospital.

In an excision of the knee-joint, which I had occasion to perform the other day, it was my intention to have adopted two precautionary expedients, which, as far as I am aware, have not hitherto been either practised or suggested. On cutting away its condyles the femur was, however, found so extensively diseased, that amputation was necessary, and I consequently lost the opportunity hoped for of testing the practical value of the measures referred to. Under these circumstances I am induced, although untried, to bring them before the attention of Surgeons, being more especially encouraged to do so by the high opinion as to their importance, which has been expressed to me by several authorities to whom they have been mentioned. The first is the *division of the hamstring tendons*, by which I should hope to prevent that repeated displacement of the bones which is often so very difficult to obviate in the after-treatment, and is the source, when it occurs, of so much suffering to the patient. By thus putting the tibia completely at rest there could be no doubt but that apposition would be easily obtained and preserved, and that all risk of non-union would be done away with. The second is the *making of an opening into the popliteal space*. An excision of the knee-joint differs from all other operations of its class, in that it provides no direct escape for the matter secreted in the subsequent stage of suppuration. In several cases which I have seen, the greatest inconvenience was produced by the bagging of the pus into the depending part of the large wound. It often burrows among the muscles, and requires counter-openings, in various directions, for its removal. All this I would endeavour to prevent by making a free depending opening by the side of the tendon of the popliteus, at the time of the operation. A circumstance strongly indicating the desirability of such a practice, and which, in fact, first suggested it to me is, that in several of the cases which have done best after excision of the knee, a sinus into the popliteal space existed prior to the operation.

33, Finsbury-circus, Feb. 25, 1856.

A CASE OF CHRONIC HYDROCEPHALUS CURED BY SPONTANEOUS EVACUATION OF THE FLUID.

By LEONARD W. SEDGWICK, M.R.C.S. and L.A.C.

Although I am not aware that the following short record of a case which happened some little time since to fall under my observation, contains any elucidation of the pathology, or any indication of a successful means of curing an obscure and intractable disease,—its rarity, and the interesting nature of the mode of cure, entitle it, I think, to some permanent record.

When I first saw my patient, he had been ailing for some time, and had been ill more than a week. He was 2 years old, had always had a large head, a heavy countenance, and a sallow complexion. His father was healthy, his mother scrofulous; they had lost one or more children previously from hydrocephalus. For some months, his appetite had been capricious, his bowels irregular, and his abdomen large. He had been gradually getting more listless for a week back; he laid his head down frequently, and complained of pain in it. He slept badly, frequently starting up with a scream. There was little heat of skin, a quick but feeble pulse, thirst, rather sluggish pupils, no appetite, relaxed slimy motions, large and hard abdomen; his whole aspect betokened scrofula. He took salines, and hydrargyrum cum cretâ, and had occasional blisters behind the neck; the pulse and general symptoms did not warrant depletion. Gradually, there became more and more evidence of compression of the brain; the head increased in size, the anterior fontanelle got very wide, the pupil was dilated, there was occasional stertor, considerable insensibility to external impressions, pulse slower and respiration oppressed. At the end of five weeks coma was imminent, almost present, and I looked for speedy dissolution; but one morning, about six weeks after the commencement of the more decided symptoms, I found him much better. There was renewed intelligence in the face, and more vigour in the limbs; the pupil was more sensible to light, and the appetite considerably improved. During the night, there had been a very considerable flow of clear fluid from the nostrils, often so rapid as to run in a thin stream, and so copious as to soak the pillow for a considerable distance. The mother was catching the drops on a handkerchief while I was there; the eyes were suffused with tears. After the first twenty-four hours, the drain of fluid from the nose was not so copious; but it continued, in gradually diminishing quantity, for some days. During this time, the head symptoms had been rapidly subsiding, and, in a very short time, he had attained his usual state of health.

A twelvemonth afterwards, the same series of head symptoms presented themselves,—the dilated pupil, the disturbed sleep, the stupor, the coma. All things indicated extreme effusion of fluid within the cranium, and all things foretold a fatal termination; even with the recollection of the extraordinary cure of the last attack, I could not hope for recovery. He was treated in the usual way, but for some weeks with no result; when, again, just as death seemed closest at hand, did the same wonderful change in the symptoms appear, coincidently with a positive flood of fluid from the nostrils. All indications of disordered brain speedily subsided, and, under the use of cod-liver oil, the child got fat and quite well.

There is little needed in the way of comment upon this case; there could be no mistaking its character; the symptoms were

plain to read, and the nature of the relief sufficient demonstration of the offending cause. That there was fluid within the cranium, compressing and gradually overcoming the brain, was evident; but it was not quite so easy to determine the exact site of the disease. Whether the fluid was contained in the sac of the arachnoid, in the sub-arachnoidean space, or in a cyst, it is impossible to say; I am inclined to believe that it was in the arachnoid sac.

Dr. Barron has recorded in an early volume of the "Medico-Chirurgical Transactions," a case of chronic hydrocephalus, in which, during the later stage, a bloody fluid oozed from the mouth and nostrils, the child died, and an aperture between the cranium and nose, through the ethmoid bone, was found.

I am not aware whether a similar case to mine has been reported. I do not recollect having met with one in my reading.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

MALIGNANT TUMOUR OF THE CLAVICLE.

(Case under the care of Mr. COULSON.)

Thomas F., aged 59, a decorator by trade, was admitted into St. Mary's Hospital, October 10, 1855, under Mr. Coulson. His family is reported as healthy, and he himself has generally enjoyed good health up to within a comparatively recent period. The only event in his life which at all bears on the question of the origin of the disease, is this:—that about thirty years ago he fell into a gravel-pit, and, he believes, that at that time the collar-bone was injured in some way. He does not, however, connect this occurrence with the formation of the tumour which now exists on the bone in question, nor does it seem reasonable so to do. About fourteen years ago there was a slight hæmoptysis. The patient is a rather tall, bony man, the colour of the skin of the face is a dull straw one, and the cheeks present patches of brightish red injection in places almost punctiform in character.

About three months ago, a small tumour appeared above the junction of the inner with the middle third of the left clavicle. When first detected it was the size of a nut, and observation was called to it by the presence of pain at the spot indicated. The tumour has very rapidly increased since this time: its growth has not been attended with much pain; that which has been noticed has been of a transitory, dull, heavy character, not coming on spontaneously, but rather induced by any exertion, such as walking, or moving the left arm. The rubbing of the clothes is productive of uneasiness, and for the last month he has been unable to follow his occupation. The growth of the tumour has been in all directions, but chiefly, so far as can be ascertained, downwards. The man has felt no pain elsewhere, seems in good spirits, and is without that desponding, anxious look so often seen in cases of this kind. He has wasted in flesh during the last three months very rapidly; formerly he states that he used to weigh fifteen to sixteen stone, but his weight is now certainly not over eleven.

Description of the tumour.—Above and upon the left clavicle is a large tumour about the size of a man's fist. It is of an oval shape, with a tendency to angular outline. Its surface is somewhat irregular, giving the impression of its being composed of three or four lobes connected together. The skin covering the tumour is thin, and not adherent to it. The superficial veins in the neighbourhood are large, especially below and to the outer side; two of these pass across the tumour, and disappear at its centre, dipping inwards to join the deep veins. The skin appears to be of a dark colour in places, but this is, in reality, due to the colour of the tumour beneath, seen through the attenuated skin. The tumour, as already stated, is situate at the junction of the inner and middle third of the clavicle, lying across that bone, so that about a fifth of its extent lies below it, and the remainder above. It is inseparably connected with that bone; is very hard everywhere but at the centre, where it is felt to be a little softer, and a slight feeling of pulsation is communicated from beneath when pressure is lightly made. This pulsation is quite limited in extent, and is, in all probability, transmitted. The measurements of the tumour are as follow:—Transversely the diameter is about three inches and a-half, vertically about three inches. That portion of the circumference which is visible measures five inches and a-half. The clavicle of the affected side appears to be depressed to some degree, and the head is thrown to the opposite side to give room to the bulky tumour. Pressure of the tumour is slightly painful. No bruit is heard through the stethoscope. The left arm has not been observed to swell, but there is occasionally numbness in that part. The motion of the left arm is restrained and uncomfortable.

Examination of the chest resulted in the detection of dulness at both apices in front, and particularly on the right side, where the dulness extended a considerable distance downwards. The respiratory murmur was puerile below the left clavicle, but bronchial over the right anterior part of the chest. The left side of the chest expands much more considerably in full inspiration than does the right. The vocal fremitus is greater at the left base behind, than at the right.

The diagnosis made was that given above, and the subsequent progress of the case tended to verify it. Nothing was done or deemed advisable to recommend in the way of extirpation of the growth.

Oct. 24.—Patient sitting up dressed. He has lately acquired a tendency to snore very loudly during sleep; the tint of the skin has become more decidedly unnatural than it was.

Nov. 2.—The diameters of the tumour are now these,—three inches and-a-half transversely, and four inches and-a-half vertically. The size of the mass has, therefore, materially increased during the last few weeks, and the hopeless nature of the case is only becoming more and more apparent. The patient complains of pain in the top of the left shoulder; the veins of the surface near the tumour are more numerous. On the right side the external jugular is always more or less full. There is some pain on pressure below the tumour, and apparently a slight projection of the wall of the chest in that locality. There is still great dulness of percussion over the front part of the right lung, and the respiration there is weak. Respiration still also puerile over the front of the left lung. The patient feels tolerably well, his appetite is good. The change in the colour of the skin is very remarkable, there being a great difference between its tint and that of a healthy man. He has wasted a little since he has been in the Hospital. There is occasionally a little cough, but no dyspnœa is noticed under ordinary circumstances.

There seemed to be little doubt of the existence of a solid mass, probably of a malignant nature, within the cavity of the chest, connected also, it might be, with that composing the tumour which presented itself outside the chest. There was nothing peculiar in the heart's action or sounds.

The patient was subsequently discharged, and sent to the Hospital for Consumption, it being obviously improper to attempt any operation for the removal of the tumour. During the patient's stay in the Hospital his strength was supported; there was no want of sleep, the pain felt in the tumour being slight in amount, and little medicine was consequently necessary.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

STAFFORDSHIRE GENERAL INFIRMARY.

RESECTION OF THE KNEE-JOINT—SEVERE SHOCK FROM THE OPERATION—RECOVERY.

(Reported by R. HALL BAKEWELL, late House-Surgeon to the Middlesex Hospital and to the Staffordshire General Infirmary.)

Anne T., aged 27, single, servant. Admitted October 20, 1854, under the care of Mr. Robert Hughes.

General History.—States that the other members of her family are healthy. Had always enjoyed good health herself previously to the knee becoming affected.

History.—Five years since perceived a firm, immovable swelling on the outer condyle of the right femur, which gave her pain when walking. Since the first appearance of this substance she has been unable to work. For eleven months after its appearance the menses ceased; she then again

became regular, and has continued so ever since. For about three years she has suffered from a severe gnawing pain in the joint, aggravated by exercise and at night. For nearly two years she has been unable to walk about, even with the help of a stick. Eighteen months ago, a "substance" formed on the inner side of the tibia, just below the tuberosity, which was very painful, red, and shining, the pain extending down the tibia. This (evidently an abscess) broke about a year ago (half-a-year after its first appearance), and healed up last August. About the same time the swelling on the outer condyle also "broke," but healed up about a month before her admission.

Various remedies were tried after her admission, but without any permanent effect. On November 16, 1854, the following notes of the state of the joint were taken:—In external appearance it has scarcely altered since her admission, but the severe gnawing pain has been constant and increasing. The articulation is quite stiff, enlarged, but not greatly so, the enlargement existing chiefly in the articular extremities of the bones, the tissues surrounding them being but little swollen. There is a fluctuating bulging on either side of the ligamentum patellæ below the patella, and a similar but smaller one on each side of the tendon of the quadriceps extensor; just over the outer condyle, is a small cicatrix, obviously of a healed-up sinus, which is fixed, and does not move with the skin. Below the knee, on the inner side, is a depressed red cicatrix, about the size of the end of the thumb, and about one-third of an inch deep. When moving the limbs, she always lifts it with both hands.

Her general health is good, and her appetite is good; but she is much distressed by the nocturnal pains. She is tolerably stout, and not anæmic; has no cough; has never had hæmoptysis. Bowels generally regular. Menstruation regular.

In consultation it was determined to perform the operation of resection of the joint.

On November 16, 1854, the patient, being under the influence of chloroform, Mr. Hughes commenced the operation by making an H-shaped incision, the tranverse part of which was made immediately below the patella. Mr. Hughes then reflected the upper flap, which contained the patella, dissecting it away from the subjacent tissues. On examining the articulating surface of the patella, it was found to be so much diseased as to require removal. It was accordingly dissected out. Mr. Hughes then proceeded to clear the articulating extremities of the femur and tibia from the condensed and hardened tissues. He then sawed through the extremities of the bones in each, making the line of section to slope slightly from the joint, so that the shape of the whole mass of bone removed was that of a truncated pyramid, of which the apex was at the anterior surface of the joint. By this means, when the sawn extremities were placed in apposition, the femur and tibia formed a very obtuse angle. Only one vessel required ligature, but there was considerable oozing from the ends of the bones. In the course of the operation, it was discovered that a long burrowing abscess, opening into the joint, was situated immediately behind the femur, extending up the thigh. The flaps having been brought together by sutures, the whole limb was placed on a splint made for the purpose, with the knee very slightly flexed.

During the operation there was a considerable loss of blood, and towards the end it was necessary to give her wine. The pulse was small and feeble. After her removal to bed she vomited. A dose of liquor opii sedativus was administered in wine, which she vomited; another was then administered in an effervescing draught, with a like result. During this time, the oozing continued, although the ends of the bones were kept in apposition, and it was going on at three p.m. (the operation was commenced about eleven a.m.) Soon after this it ceased.

6 p.m.—Has been frequently sighing and yawning, and constantly complains of being cold. Bottles of hot water have been applied to the feet. Morphiæ hydrochloratis gr. ¼ was administered in the form of pills. Brandy and water have been freely given, hydrocyanic acid, etc., but each was immediately rejected by the stomach, and the vomiting still continues. The pulse is small and thready, and the extremities cold. She has not slept. There is no further dozing. The countenance has an anxious expression. About two hours ago she expressed a great desire for an egg, which was given her. This, however, like everything else, she vomited up almost directly.

November 17, 2 a.m.—Up to this time I had remained in the ward with her. She complained frequently and urgently of cold, of thirst, and of pain in the leg. There has been no further hæmorrhage. The skin has been cold, the pulse extremely small, feeble, and rapid. Everything that was administered was rejected, either immediately, or about a quarter of an hour after being taken. All the usual remedies, including various kinds of diffusible stimuli, were given, with the hope of restraining the sickness, and promoting reaction, but in vain. An epithem of laudanum was applied to the epigastrium, but without effect; the sighing and yawning still continued.

About 1 a.m., the pulse becoming so weak as to be hardly perceptible, I administered a full dose of sp. ammoniæ arom., æther. chlor., et tinct. opii, and instantly commenced the application of electro-magnetism. The current was made between the upper part of the neck, on each side alternately, to the epigastric region, and occasionally down the arms. The effect was immediate. The pulse soon became stronger and slower, the voice, which had been very feeble, became stronger, and the countenance more cheerful. The sickness was completely arrested, and the sighing and yawning never once occurred during the exhibition of the remedy, which was continued for about three-quarters of an hour. Immediately after this, thinking to send her to sleep, I gave her ʒss. of tincture of opium, in a tea-spoonful of brandy. She vomited it, together with all the contents of the stomach. However, after this, she was not again sick.

At 3 a.m. and 4 a.m. I again saw her, and ordered ʒss.-doses of wine to be given: these she retained. During the night her thirst was so urgent, and her desire for tea so great, that she was several times supplied with it, but it invariably made her sick. Hardly anything but a dose of the æther and ammonia would remain on the stomach more than two or three minutes.

9 a.m. I saw her again. Has not been sick since three o'clock. Skin warm; pulse has more power, and is fuller. Complains of the leg as being very hot. Habeat mist. sp. vini gallici p. r. n.

2 p.m.—Has not slept since the operation. Has not been sick again. Retains the brandy-mixture.

18, 3 a.m.—Called up to see her. She complains of pain in the epigastric region, and in the leg, and wishes to have an anodyne. Ordered a fomentation to the epigastrium. Sumat. liq. morph. hydr. ♏ xxx., et applic. cat. lini genu.

4 p.m.—The knee is very painful, and the pain in the stomach, accompanied by flatulent eructations, very severe. ℞ Liq. potassæ ♏ xx., sp. ammon. arom., sp. lavand. co., āā ʒss. p. r. n. Beef-tea and arrow-root.

19.—Greatly relieved by the draught. She complains of considerable pain in the leg and knee. The surfaces of the bones are not in apposition. Face flushed; pulse frequent, and jerking; tongue clean; bowels not open since the operation.

20.—Face still flushed; bowels open; slept well last night. There is a watery reddish discharge from the wound.

23.—Has been doing well since last report. Last night was ordered a mutton chop twice a-day. Feels better for it to-day. The splint was to-day removed, the leg cleansed, and placed on a double-inclined plane, having the angle very obtuse. Around the wound a damp towel was placed, in order to soak up the discharge.

27.—Has been going on well. Discharge and granulations healthy. Eats and drinks well; sleeps well after an opiate at night.

Dec. 12.—Discharge profuse from the opening on the outer side of the joint, but healthy in character; granulations, healthy-looking; countenance, sallow and pale; pulse, weak.

14.—Complains of severe pain in epigastrium. There is great tenderness in that region, and at intervals she vomits small quantities of an exceedingly dense, translucent greyish non-aërated mucus, very tenacious, and mixed with dark-coloured blood. She is quite clear as to the fact, that this mucus comes up by an effort resembling vomiting. She has no cough whatever. Ordered to omit the wine and chops, and have a sinapism to the epigastric region. A mixture containing tincture of hyoscyamus, nitrate of potash, and acacia mixture was given. Arrowroot and milk ad lib.

17.—Better. Less pain and tenderness. Brings up mucus

as before. To-day there is a small patch of bright blood in it. Wine ʒij daily and one mutton chop. At this time there is a considerable discharge from each end of the transverse incision; the other parts are healed up.

Having made but little progress from this time until the beginning of February, she then left the Hospital in order to try the effect of change of air. She remained in Stafford about three weeks, her improvement being retarded by the supervention of a severe catarrhal attack. She afterwards returned to her home. During the summer the part became painful, swelled, and discharged pus again, at the site of several of the old sinuses. This was attended with much constitutional disturbance, but no return of the gastric disorder. About this time the abscess, which was found at the operation to extend up the thigh, close to the femur, reopened about a hand's breadth above the joint, discharged freely, and then healed.

On October 23, 1855, she was in robust health, plump and active, walked to visit her neighbours, and could ascend stairs without aid, wearing a thick, solid boot on the short limb. The appearance of the limb in the situation of the joint is not unsightly. There were still two sinuses at the extremities of the transverse cicatrix, from which healthy pus is discharged.

For the particulars of the case since December 17, I am indebted to the operator Mr. Robert Hughes.

Remarks.—This case presents two or three points worthy of notice. The first is, the modification of the operation, introduced I believe by Mr. Hughes, of so sawing off the ends of the bones, as to cause them to unite at an obtuse angle. By this means, it is obvious that the limb is rendered much more useful in progression, and the sole of the foot will come down flat upon the ground when walking. The second is, the intensity and long continuance of the shock. It was, I believe, Mr. Hughes' opinion, that if the administration of the chloroform had been continued until the patient was placed in bed, and the limb finally arranged, the state of shock might have been avoided. The supervention of such a serious state of collapse will, however, be worthy of consideration in calculating the difficulties and dangers of the operation. The use of electro-magnetism was suggested to me, from having seen its beneficial effect in the severe collapse which frequently occurs in alcoholic poisoning.

Medical Times & Gazette.

SATURDAY, MARCH 15.

THE NEW VACCINATION BILL.

On Friday week, the President of the Board of Health obtained leave to bring in a Bill for the extension of Vaccination throughout England and Wales. Our readers will be gratified to observe, that this Bill embodies many of the principles for which we have long been contending, and removes many of the objectionable features of the very defective Act upon the same subject now in operation. The minimum rate of payment for each case of Vaccination is to be raised to 2s. 6d., if the operation be performed within two miles of the operator's house, and to 3s. 6d. if beyond two miles. Medical Practitioners not being public Vaccinators, are to receive a fee of 1s. for furnishing a certificate of Vaccination, or of insusceptibility to Vaccination; such fee to be quite independent of the remuneration claimable for the operation. The difficulty of removing the control of Vaccination altogether from the hands of the local Board has been found to be insurmountable, and those bodies are, therefore, to continue to appoint and to pay the Vaccinators; but a supervision of the whole machinery of the operation throughout the country is to be instituted, and a wholesome check will, thereby, be provided against its careless or inefficient performance. Fines are to be stringently enforced against all parents who neglect to cause their children to be vaccinated, and persons who wilfully propagate Small-pox by inoculation, or by any other means, are to be liable to imprisonment, without the option of paying a fine.

There can be no doubt that this Bill, which, if duly carried into effect, will exterminate Small-pox in this Island, will receive the cordial and unanimous support of the Profession.

ARMY MEDICAL DEPARTMENTS (a).

PRUSSIA.

The Medical Department of the Prussian Army is regulated by an Ordinance of February 12, 1852. It is recruited exclusively from the pupils of the "Institution of Frederick William," the School of Military Medicine at Berlin, who before being appointed must possess the degree of Doctor in Medicine, Surgery, and Midwifery. The following table shows at a glance the general organization of the Department, the number of Officers of each grade, their relative Military rank, and the rates of full and half-pay.

Grades.	Number of each Grade.	Relative Military Rank.	Full Pay.	Lodging Allowance.	Retired Pay. 15 to 25 Years' Service.	Retired Pay. 25 to 30 Years' Service.	Retired Pay. For every 10 Years above 30.
Staff.			£	£ s.	£ s.	£ s.	£ s.
Physician-in-Chief, Inspector-General of the Department	1	Colonel.	450	70 0	120 0	180 0	60 0
Principal Medical Officer	1	Major.	225	40 0	75 0	112 10	37 10
Superior Medical Officer for the verification of accounts....	1	1st Lieutenant	105	30 15	22 10	33 15	11 5
,, Chief Secretary	1	,, ,,	90	—	22 10		
Principal Inspector of Hospitals	1	None.	105	40 0	30 0	33 15 / 45 0	11 5 / 15 0
Principal Apothecary..	1	None.	135	40 0	30 0	45 0	15 0
Superior ,,	1	None.	90	—	—	—	—
Assistant ,,	2	None.	75	—	—	—	—
Divisional Staff.							
Principal Medical Officers.....	9	Major.	225	40 0	75 0	112 10	37 10
Garrison Staff.							
Superior Medical Officers.....	9	Captain.	105	40 0	—	—	—
Garrison ,, ,,	5	1st Lieutenant	75	20 0	22 10	33 15	11 5
,, ,, ,,	18	,, ,,	60	20 0	22 10	33 15	11 5
Regiments.							
Surgeon-Majors ,,	16	Captain.	180	40 0	56 5	84 0	27 15
,, ,, ,,	42	,, ,,	150	40 0	56 5	84 0	27 15
,, ,, ,,	26	,, ,,	135	40 0	56 5	84 0	27 15
Battalion Surgeons of the Line ,, ,,	10	1st Lieutenant	90	20 0	22 10	33 15	11 5
,, ,, ,,	24	,, ,,	75	20 0	22 10	33 15	11 5
,, ,, ,,	12	,, ,,	60	20 0	22 10	33 15	11 5
Battalion Surgeons of Militia.....	50	,, ,,	45	20 0	18 0	27 0	9 0
,, ,, ,,	67	,, ,,	36	20 0	18 0	27 0	9 0
Assistant-Surgeons....	525	2d Lieutenant.	36	20 0	18 0	27 0	9 0

In Prussia, the Medical Officers form a distinct corps, under the control of the Physician-in-Chief, by whom all orders relating to the Department are issued, all recommendations for promotion are made, and on whom devolves the general direction of the Military Hospitals. Their dress is the same as that of the corresponding Military ranks.

The promotions up to the grade of Battalion-Surgeon are by seniority, those to the superior appointments, by selection; the Physician-in-Chief is chosen from among the nine principal Medical Officers.

Attached to the Medical Department is a corps of Hospital Assistants, (*Lazareth-Gehülfen,*) composed of soldiers of good education, able-bodied, and willing; they are taught to perform the minor operations of Surgery, and to compound and dispense medicines. They are under the immediate orders of the Medical Officers, and, after having received the necessary instruction in the Hospitals, are attached to regiments in the proportion of at least one per company. They are stated to

(a) Continued from page 139.

have been found very useful. The Medical Staff Corps which has been recently raised in our service, appears to be somewhat analogous to this body.

AUSTRIA.

The Medical Department of the Austrian Army was established on its present footing in 1850. The distinction between Physicians and Surgeons has been abolished, and all are now comprehended under the title of Medical Officers, except the two lowest grades, who are designated "Superior Surgeons," and "Inferior Surgeons," and are not eligible for promotion to Battalion Medical Officers. They are attached to companies and squadrons, and their duties are to accompany the soldiers to field exercise, or when there is reason to believe that accidents may occur; to make the necessary health inspections, to superintend corporal punishments, and to take charge of the soldiers upon whom these have been inflicted. Candidates for the appointment of Battalion Medical Officer, must have studied at the "Josephinum," the celebrated School of Military Medicine, established at Vienna by the Emperor Joseph II., in 1785, and must possess the diploma of Doctor in Medicine and Surgery, and have passed the examinations in Midwifery and Eye-diseases. The following table shows the establishment of Medical officers, and their position as regards rank and pay :—

Grades.	Number of each.	Relative Military Rank.	Rate of Pay. On the Peace Establishment. £ s.	On the War Establishment. £ s. d.
Physician-General-in-Chief	1	Major-General.	416 0	—
Principal Med. Officer, 1st class	6	Colonel.	187 4	228 16 0
,, ,, ,, 2nd ,,	8	Lieutenant-Col.	166 8	208 0 0
,, ,, ,, 3rd ,,	22	Major.	145 12	176 16 0
Regimental Med. Officer, 1st ,,	72	1st Captain.	104 0	125 0 0
,, ,, ,, 2nd ,,	72	2nd Captain.	83 4	104 0 0
Battalion ,, ,, 1st ,,	325	Lieutenant.	62 8	74 17 6
,, ,, ,, 2nd ,,	324	Sub-Lieutenant.	52 0	64 9 6
Superior Surgeon	200	Cadets.	41 12	47 0 0
Inferior Surgeon	1500	Cadets.	31 4	37 0 0

The Physician-General is, in virtue of his office, an Aulic Councillor, and receives as such an allowance of £104 per annum; he also receives £62 8s. in lieu of quarters. The allowance under this head to the other Medical Officers, which they only receive when they do not live in barracks or hospitals, varies according to the place where they are stationed. When they are upon the war establishment the lodging allowance ceases, but they then receive rations.

The Medical Officers are entitled to the same honours and privileges as the corresponding Military ranks, wear the same uniform, and receive the same rate of retired pay. If a Medical Officer die of his wounds, or fall a victim to an epidemic, his widow or children receive a pension equal to two-thirds of his pay; if he die from any other cause, the allowance amounts only to half of the pay.

The Physician-General is selected from the principal Medical Officers of the first class; but the other promotions, except in a few special cases, are made by seniority. He has the superintendence of the Department, and is assisted by a Board, composed of Professors of the "Josephinum;" but their decisions, before being final, must be approved by the Aulic Council of War, who have, also, a control over the appointments and promotions, which are made on the recommendation of the Physician-General.

Sanitary Companies, similar to the Corps of Hospital-Assistants in the Prussian service, were organized by Marshal Radetzky in 1848, but they are not placed under the immediate orders of the Medical Officers.

The Apothecaries are under the orders of the Physician-General, but have no military rank, and wear the civil uniform. They are only employed in the central laboratory at Vienna, and in the district establishments. In the smaller hospitals the duties are performed by a "Superior Surgeon."

BAVARIA.

The qualifications demanded before admission into the Medical Service of the Bavarian Army, are the possession of a Degree in Medicine and Surgery, and to have passed satisfactorily a practical examination. The Department is under the control of a "Physician-General on the Staff," assisted by a Deputy, who are attached to the Department of the War Minister, and make all recommendations for promotion, and decide all questions relative to the Medical Service. We have no information as to the number of officers on the establishment, but the various grades and their rates of pay are shown in the following Table :—

Grades.	Relative Military Rank.	Rates of Pay on the Peace Establishment. £ s.
Physician-General on the Staff	Colonel.	172 0
Staff-Physician	Lieutenant-Colonel.	152 0
Divisional Medical Officer	Major.	120 8
Apothecary on the Staff at Head-Quarters	Major.	120 8
Regimental Medical Officers, 1st class	Captain.	103 4
Principal Apothecary, 1st class	Captain.	103 4
Regimental Medical Officer, 2nd class	Captain.	77 16
Principal Apothecary, 2nd class	Captain.	77 16
Battalion Medical Officer, 1st class	Lieutenant.	51 12
,, ,, ,, 2nd ,,	Lieutenant.	51 12
Second Apothecary, 1st class	Lieutenant.	43 0
Assistant Medical Officer	Sub-Lieutenant.	34 8
Second Apothecary, 2nd class	Sub-Lieutenant.	34 8
Medical Practitioners	Ensign.	25 16
Assistant Apothecary	Ensign.	25 16

The officers of the lowest grade (*artzlichen Practicant*) are employed only in the large hospitals; on promotion to Assistant Medical Officer (*ünterartz*) they are appointed to regiments. The promotion throughout the service is regulated by seniority. The Medical Officers wear the same distinguishing marks of rank as the other officers, but the Apothecaries have no epaulettes. When from age or disease a Medical Officer becomes unfit for service, he receives a pension nearly equal to his full pay.

THE WEEK.

It will be perceived that Mr. Griffin is vigorously pursuing his course in bringing about a healthy system of Medical Poor-law Reform, and his letter, published in our columns of this day, contains a spirit-stirring appeal to the Union Surgeons throughout the country. Seventy Unions have already, at the time of our writing, responded to the call, and the number is daily increasing. The arguments employed by Mr. Griffin are so cogent, and his data so precise, that they must carry conviction to the minds of all unprejudiced persons, and, as we have often remarked, nothing is wanting to secure a triumphant victory, but firmness and consistency on the part of the Union Surgeons themselves. The Poor-law Board is, we firmly believe, favourably disposed towards our Profession, however heterodox we may appear in expressing such a sentiment; but while the miserable meanness and petty tyranny of the Local Boards are fostered and encouraged by treachery within our own ranks, we cannot hope for success, and *we have no right to expect it*. As a natural consequence of Mr. Griffin's zealous exertions for the public good, we learn without surprise, but still with regret, that he is the object of newly threatened persecution by the Weymouth Board of Guardians, and it is the duty of the whole Profession, especially of that portion which is engaged in Poor-law

practice, and more especially of his brethren in his own district, to support him in the arduous and hitherto unequal conflict. Let us all put our shoulders to the wheel, and, in the triumph of Mr. Griffin, a great public principle will be maintained, and the honour of a large section of our Profession will be amply vindicated.

An unfortunate lady has been poisoned by Strychnia, at Leeds, and her husband is in custody on suspicion of having wilfully administered the deadly drug. The symptoms produced by this powerful poison seem to have been clearly marked during life, for instance the frequent twitchings of the limbs, the clenched teeth, the tetanic spasms, the arched form of the back; and the post-mortem examination has confirmed the diagnosis. The absence of any natural appearance likely to account for death, and the actual detection of strychnia by the appropriate chemical tests, leave very little room for doubting how this lady's life has been sacrificed. Whether the husband administered the poison is a question for the jury to determine, and while alluding to some of the chemical and pathological features of the case, we have no desire to anticipate the course of public justice. No persons who have read the evidence of Mr. Nunneley and Mr. Morley, both of Leeds, who were the chief Medical witnesses in this painful case, can fail to appreciate the skill, tact, and profound knowledge exhibited by those gentlemen. It appears to us that their entire conduct reflects the highest credit upon themselves and upon Provincial Practitioners in general. But we cannot too strongly reprehend the conduct of one of the assistants of the latter Surgeon, as he is represented as smoking pipes with the husband of the deceased, supplying him with the strychnia, and holding discussions with him upon the nature and use of poisons. But we are willing to believe that this arose from the inexperience and thoughtlessness of youth.

As time rolls on, the New Medical Reform Bill encounters more and more opposition, and very little hearty support. No public meeting has yet been called at which the voice of the Profession may be heard, but many of the corporate bodies have already commenced a powerful attack upon the new measure. The Royal College of Physicians of London is said, on the whole, to be favourable to it; but the College of Surgeons of England is in the ranks of the opposition; and the Society of Apothecaries, whose Medical functions are wholly abolished by it, ranges itself on the same side. The University of Edinburgh, and the College of Surgeons of the same city, are vehemently opposed to the whole scheme; while the College of Physicians of Edinburgh is among its supporters. The Irish College of Surgeons and the Apothecaries' Hall of Ireland are, among its antagonists, and many of the Irish members are delegated to oppose its progress through Committee. The objection urged in an advertisement issued by Mr. Upton, on behalf of the London Society of Apothecaries, that the new Act, if passed, would legalize Medical practice by Chemists and Druggists, has been answered by the assurance that a clause is to be introduced in Committee which will effectually suppress all illegal practice; but we very much doubt whether any such clause, even if proposed, would ever be carried in the House of Commons, where the quack interest has been proved to be so strong. When we seek to discover the chief promoters of the New Bill, we are at some loss to find them; for, although emanating originally from the Provincial Medical and Surgical Association, we do not find that the Association has distinctly expressed itself on the present occasion; and, indeed, we do not precisely know the elements of which the Association now chiefly consists. Although it is said to be increasing largely in numbers and importance we have no accurate data before us to sustain the assertion; the Metropolitan Counties Branch is almost extinguished, and several Scotch members, among whom are Professors Christison, Goodsir, Balfour, and J. A. Lawrie, have resigned their membership. It would certainly be satisfactory if lists could be published, showing to the House of Commons and to the country the names of the parties who approve the new Bill in all its parts. Many persons signed petitions in its favour before they had seen it, and a great many more have merely petitioned for some general measure of Reform; but we are inclined to think it will be found that those who approve the Bill in all its details form a very small minority of the Profession. It is hardly necessary to observe, that there is not much chance of the passing of the Bill in the face of so much opposition as is known to be arrayed against it.

The Vestry of the Parish of St. Luke's, Old-street, resolved, on Tuesday last, that the salary paid to its Officer of Health should be £100 per annum! Now, the Parish of St. Luke's, Old-street, has more than 10,000 inhabitants; it includes Goswell-street and Goswell-road on the West to York-street, and Brick-lane on the East, extending North from Old-street to the City-road, and, in 1848-49, it suffered a mortality from cholera at the rate of 48 in 10,000. Take any district in London at an equal elevation above high-water mark, and we think we may defy any one to point to a more squalid, miserable block of habitations for humanity than that the boundaries of which we have given as marking out the Parish of St. Luke's, Old-street. The want of drainage in some places, the surface drainage in others, and the film-covered refuse water in the kennel, point out this densely-inhabited district as the opprobrium of the Metropolis. Into all the minutiæ of its squalor and dirtiness, into all the fevers and plagues of the district, and the causes of them, with the want of ventilation in its reeking little chapels, and schools, and public buildings, the devoted Medical Officer of Health has to pry. He must make himself conversant with every fact of wretchedness, as well as its cause, in that wretched locality; he will, without doubt, be obliged to subject himself to the miasma of every abomination; and, in recognition of his services, he will be exposed to the degradation of receiving £1 18s. 5½d. per week, or £100 per year. Without any qualms of conscience in respect to the Chancellor of the Exchequer, we would, in all mercy, plead with the Vestry of St. Luke's, Old-street, to write it down £99 19s. 11¾d., as otherwise their victim's salary will be reduced by Income-tax to about £96. But, seriously, why should not the Vestry do in respect to their Medical Officer as they did with regard to their Surveyor,—they put the "right man in the right place," and gave him a righteous recompense; but, we vouch for it, no £100-man *can* be a right Medical Officer for the filthy and densely-populated locality of St. Luke's, Old-street.

REVIEWS.

Madeira und seine Bedeutung als Heilungsort: The importance of Madeira as a Place of Resort for the Restoration of Health. By Dr. Mittermaier. Heidelberg. 8vo. Pp. 158. 1856.

The author gives a description of the island, its meteorology, etc., and shows, from his own observations, as well as from those of other writers, the advantages of its climate as a residence for invalids. The English Medical reader is familiar with many works on Madeira to which German readers may not have so ready access. Among the English works which the author has consulted are those of Gourlay, Heineken, Mason, Clark, and White.

Throat Ailments; more especially the enlarged Tonsil and elongated Uvula, in connexion with defects of Voice, Speech, Hearing, Deglutition, Respiration, Cough, Nasal Obstruction, and the imperfect development of Health, Strength, and Growth in Young Persons. By James Yearsley. Sixth Edition, pp. 112. London, 1856.

Mr. Yearsley's object in this work is to describe certain affections of the throat which are capable of cure by operative proceedings. The enlargement of the uvula and tonsils is shown to produce a number of disagreeable, if not dangerous, symptoms, and the removal of these enlargements by the knife is proved to be a pretty certain mode of relief. There are few members of our Profession who are not aware of the existence of these affections, and of the best methods of treating them; but Mr. Yearsley has devoted considerable attention to the investigation of the subject, and, as a monograph, his book will be found useful.

The Correspondence relating to the Lancet Sanatory Commission (which appeared lately in the *Times*) *Examined.* By James Cæsar Durnford, Esq.; John A. Power L.M., M.A., Cantab., and Raymond S. Daniell, M.A. Oxford. Pp. 60. London: 1856.

The object of this pamphlet is to present to the public, in a collected form, the correspondence which has appeared in the *Times* on the subject of Dr. Hassall's connexion with the Analytical Sanatory Commission; and the authors commence by an explanatory statement, exculpating Dr. Hassall from the censures which have been cast upon him. As the matter chiefly concerns Dr. Hassall and Mr. Wakley, and as they are both able to fight their own battles, we shall content ourselves with observing, that the pamphlet before us is written with care, and is characterized by moderation and fairness; and all who take an interest in the question of Dr. Hassall's services to the public in the detection of adulterations will peruse its pages with advantage.

The Food of London: a Sketch of the chief varieties, sources of supply, probable quantities, modes of arrival, processes of manufacture, suspected adulteration, and machinery of distribution, of the Food for a community of Two millions and a half. By George Dodd. Pp. 524. London: 1856.

The subject chosen by Mr. Dodd is a most extensive and difficult one; the proper treatment of which embraces a great amount of historical and statistical knowledge, and the data must be searched for in various sources and often searched for in vain. Mr. Dodd has brought to his task many of the requisites which such a wide field of investigation demands. He makes no pretension to physiological, zoological, or botanical science; but he revels in statistics, telling us, for instance, the number of sheep brought annually into Smithfield, of geese brought to Leadenhall Market, and of oysters brought to Billingsgate; and enlivening the dryness of such details with picturesque descriptions of the scenes and characters met with at the respective markets. The subject of adulteration is frequently alluded to, and Mr. Dodd shows that he has carefully studied the recent revelations concerning the sophistication of the various articles of food. Altogether, a very amusing and interesting book has been composed, which will be read with pleasure by all who wish to solve the great problem of the supply of food to two millions and a half of human beings.

Illustrated Medical In-door Gymnastics; or, a System of Medico-hygienic Exercises Requiring no Mechanical or other Aid, and Adapted to both Sexes and all Ages, and for Special Cases. By Maritz Schreber, M.D., Director of the Leipzig Orthopædic and Medico-Gymnastic Institute. Translated from the Third German Edition by Henry Skelton. 8vo. Pp. 95. London and Edinburgh: 1856.

So ample a title-page leaves us but little to tell about the contents of this work, save that it contains forty-five woodcuts of men in a variety of attitudes strongly reminding us of the drill-sergeant. Each attitude, moreover, is described in connexion with one or more local or general morbid conditions for which it is said to be therapeutic or prophylactic.

Headaches: their Causes and their Cure. By Henry G. Wright, M.D. Pp. 152. London: 1856.

We are presented in this brochure with a very fair summary of the subject announced in the title. Dr. Wright discusses this ailment very briefly, adding nothing to our knowledge respecting it. The principal division he adopts has reference to the age of the sufferer. He describes the symptom as it occurs (A) in childhood and youth, (B) in adult life, and (C) in old age.

A Manual of Zoology. By M. Milne Edwards, Member of the "Institut." Adopted by the Council of Public Instruction of France. Translated by R. Knox, M.D., F.R.S.E., Lecturer on Anatomy, etc. Illustrated by 500 First Class Wood Engravings. London: Henry Renshaw, 356, Strand. 1856.

A work which proceeds from the pen of Milne Edwards, which has been adopted by the public educational authorities of France, which has passed through seven editions in its native tongue, and of which 30,000 copies have been sold, and which, moreover, comes before the English public under the editorial care of Dr. Knox, may well be supposed to stand above criticism. We will content ourselves, therefore, with stating, that the object of the work appears to be to furnish an elementary guide to the study of Zoology; and that it is intended both for the Student of Medicine, who would make this book a stepping-stone to the further acquisition of anatomical knowledge, and for the educated classes in general, who desire to make some department of Natural History a part of their education.

The work before us begins with an analysis of the various animal structures and functions, and then goes on to a view of the whole animal kingdom, its classification, and the characteristics of the leading divisions and families. It is clearly arranged, profusely illustrated, handsomely printed, and altogether creditably got up so far as the publisher's office is concerned; and we repeat, that it is likely to be a good text-book for Students, both Medical and general. We may add, that it contains nothing which renders it unfit for the drawing-room table.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

AFFECTIONS OF THE FEET.

M. Nelaton recently (*Gaz. des Hôp.* No. XCVIII.) called the attention of his class to a singular deviation of the toes, especially of the great toe, not infrequently met with in the aged, but undescribed in books. It is principally met with in persons pursuing laborious occupations, and in the indigent who are ill-shod. It offers different characters. In some, the great toe is carried outward to such a degree that the projection of the first metatarsus is covered only with the integuments, in place of corresponding to the surface of the phalanx. Instead of being carried to the side of the other toes, the great toe may mount above them and form a right angle with the first metatarsus. At other times, the toe may pass below in place of above, and become lodged in the furrow corresponding to the metatarso-phalangean articulations. M. Nélaton believes that the deviation arises from retraction of the extensor muscle of the great toe, and before the deviation takes place the tendon of the extensor presents a corded appearance. At the same time there is retraction of the extensor tendon of the four neighbouring toes, which do not become luxated outwards, but are curved upon themselves. Not only is this disposition of parts a great impediment to walking, but it may give rise to irritation and perforation of the integuments by the metatarsal bone. When the patient is not much advanced in age, and the luxation is incomplete, the tendon of the extensor tendon of the great toe should be divided subcutaneously, and the ends kept apart while cicatrizing. In the case of the present old man such an operation would be useless. The extremities of the bone being deformed, and the phalangean surface obliterated, the reduction of the toe would be impossible, and all that can be done is to order him a shoe suited to the deformity.

Another affection, which from time to time is witnessed at the Paris *clinique*, and known under the title of *perforating disease of the foot*, forms the subject of a thesis by M. Leplat (*Gaz. Hôp.*, No. CXVII.), who witnessed eight examples during his *internat*. The course of the affection is as follows:—There is (1), usually at the commencement, a horny production found at the sole of the foot, and over the most projecting parts; (2), an ulcer forms, surrounded on all sides by a circle of very thick epidermis, and from which is discharged a sero-sanguinolent, ichorous fluid; (3), inflammation of the serous bursæ, the tendinous and articular synovial membranes, and of the periosteum; (4), ostcitis, caries, and necrosis. M. Leplat has found the most common seat to be—at the sole of the foot, over the prominent line of the metatarso-phalangean articulations, the pulp of the toes, and the heel. It has been also met with, exceptionally, at the dorsal surface of the toes, and at the upper and posterior part of the heel, giving rise to the exfoliation of the tendo-Achillis. He believes it to be quite local in its nature, and to arise from prolonged compression between two resistent bodies, first between the shoe and the bone, and later between the bone and the plantar induration. As a consequence of this compression, the dermis undergoes mortification, a molecular destruction of its elements taking place, resembling that which is observable in many ulcers, as after contusion, or in the production of a varicose ulcer. It seems to be met with especially in persons whose occupations keep them much on their feet, and one only of the author's eight cases occurred in a woman. Still, in a case observed by M. Nélaton, he was unable to refer the origin of the affection to any known cause, and it was hereditary in the family. M. Vesignié, who has met with several of these cases, regards the affection as a variety of psoriasis palmaria. Some have attributed its origin to sweating of the feet, others regard it as papillary hypertrophy of the plantar region, while others, again, consider it as the effect of certain diathesis, as the syphilitic. M Leplat has not been able to trace any of his cases to any of these causes, and yet cannot but allow that some special predisposition must exist, seeing the great rarity of the affection as compared with the general prevalence of the mechanical causes it has been attributed to. Moreover, it is sometimes unpreceded by any induration, while its rapid progress in some cases, and its multiplication at various points in others, forbid its being explained by a mere local cause. When abrasion of the diseased tissues is performed, the affection usually reappears in the cicatricial tissue.

ON THE PREVENTION OF THE SPREAD OF CHOLERA.

By Dr. KUCHENMEISTER.

Dr. Küchenmeister asks for co-operation in essaying how far the spread of cholera may be limited by the administration of small doses of preparations of iron in combination with salts of lime. Schmidt and others have shown that a large expenditure of chloride of sodium takes place through the stools and vomits in this disease, and that with this a retention of urea coexists. The latter is evidenced by the suppression of urine, and by the excretion of the urea, which should be discharged by the kidneys, in a crystalline form, by various parts of the body. Some observers have also succeeded in developing ammoniacal vapours from the blood in cholera. Thus, in cholera an expenditure of chloride of sodium goes hand in hand with the perversion of the excretion of urea. Unfortunately, the great difficulty attendant upon the examination of the excreta in general forbids the expectation of our easily ascertaining with exactitude the comparative conditions of the urea and sodium in the stools, urine, and sweat, in determinate individuals either in the prodromic stage or actual outbreak of cholera. In the absence of such exactitude, we must see whether we cannot utilize by analogy other practical facts. According to the author's experience the means best suited for bringing the excretion of sodium and urea into harmonious operation is the administration of iron with salts of lime. The iron acts as a direct local styptic and tonic upon the mucous membrane of the intestinal canal. Also those who have much to do with cholera-patients, or in whose family the disease prevails, should assist the influence of the iron by the moderate use of red wine or bitter beer. No local tonic exerts such a powerful tonic influence upon the mucous membrane, without irritating it, as does iron. In this respect, as well as in its astringent power, it is superior to the nitrate of silver. From long personal experience, by testing his urine, etc., the author has ascertained that iron also much aids the favourable influence which the carbonate and phosphate of lime exert in regulating the excretion of urea. He proposes in any district where cholera prevails, and especially in families in which diarrhœa has manifested itself, the employment of the following formula:—

℞ Ferri lactici ʒ½—ʒj.
Calc. phosphor. ʒj.
Calc. carbon. ʒij.
Sacch. lact. ʒ½—ʒj.
Pulv. cinnam. ℈j. M. Ft. pulv.

Of this a small teaspoonful should be taken at each mealtime. A glass of good wine or beer, though not essential, may be allowed.

Dr. Küchenmeister begs for a trial of this simple means on a large scale in affected districts, especially as it does not prevent other means of a curative character being resorted to. Thus in persistent or relapsing diarrhœa, small doses of opium or ipecacuanha, may be given in the intervals of taking the powder. In cholera itself, he suggests also that advantage might be derived from the administration of real or artificial mineral waters, containing free carbonic acid, the carbonates and the salts of iron. Some Practitioners have, during the after-treatment, administered chloride of sodium in order to directly replace the loss of this substance, but without the simultaneous employment of regulators of the chloride in the body, among which are iron and salts of lime, there is little utility in the practice.—*Wien Wochensch.* 1855. No. XL.

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

(From our Edinburgh Correspondent.)

Edinburgh, March 8, 1856.

The plethora of previous weeks is succeeded by anæmia in that just concluded.

The meeting of the Medico-Chirurgical Society held on the 5th instant was poor in the extreme. I have seldom seen the benches more empty, which was all the more noticeable from its crowded state on the previous evening. The first paper read was entitled, "Report of the Sea Bathing Season at Scheveningen of the years 1854 and 1855." It was singularly dull and tiresome, and quite unfitted for the Society.

The second was, "Notice of a case of Death during the administration of Chloroform," by Dr. Mackenzie, of Kelso.

The chloroform was given to produce insensibility during an operation performed by Dr. Mackenzie. The general impression seemed to be that death took place from syncope, and not from chloroform.

The speakers were Drs. Matthews, Duncan, and W. T. Gairdner.

Mr. Headlam's Medical Bill.—The College of Surgeons, at a meeting held to-day, agreed to a report of the council strongly condemning the Bill, and you may expect our President, Dr. Andrew Wood, in town very shortly to give it his most strenuous opposition.

IRELAND.

(From our Dublin Correspondent.)

Dublin, March 11, 1856.

I regret to have to add to the catalogue of poisonings, of late unfortunately so extensive, a case which has occurred at this side of the water, and which has cut off, in the prime of life, Captain Aquilla Kent, formerly an esteemed citizen of Dublin, and late of the 4th Lancashire Militia. This case, though devoid of the complication of criminal intent, has, by exhibiting the results to which ignorance may lead, caused great alarm and mistrust, and greatly shocked the public mind. The melancholy event took place in the town of Newry, and was caused by the substitution, in the compounding of a prescription for a mild and innocuous drug, of one of the most

potent narcotic poisons. A prescription of Sir Henry Marsh, consisting of equal parts of syrup of sarsaparilla and tincture of chirayta, which appears to have been correctly prepared on the first occasion, was copied by an assistant, who, instead of the tincture ordered in the prescription, wrote tincture of aconite, and from this copy the medicine was prepared when subsequently required, and of the deadly mixture so supplied to him the unhappy deceased took a dessert-spoonful, containing, of course, a tea-spoonful of the tincture of aconite of the Dublin Pharmacopœia, a quantity which proved fatal within two hours. This medicine was compounded in the establishment of a druggist, who possessed no legal qualification entitling him to practise pharmacy, and who had, on a previous occasion, been fined by the Apothecaries' Company for a violation of their Act. The two assistants who were implicated in the transaction, the one in copying the prescription, the other in compounding the medicine, have been tried and sentenced to four months' imprisonment. The still more guilty party who employed these ignorant young men, and had been made aware of the nature of the law, has as yet escaped, but it is to be hoped that measures will be taken to prevent a statute framed as a safeguard to human life being thus set at defiance and rendered abortive.

The melancholy case I have just alluded to may possibly be suggestive in reference to the measure of Medical reform now under the consideration of the Imperial Legislature, as showing the necessity of special education for all who intend to engage in this department of medicine. It is also worthy of particular consideration whether a more complete and practical knowledge of pharmacy should not be made an essential part of every Medical man's education. And in reference to the subject of Medical legislation, it is of the utmost importance that those who are not now legally qualified, or who shall not hereafter be rendered competent by proper training to undertake the compounding of medicine, should not be intrusted with this responsible duty.

Having alluded to the subject of Medical Reform, I may mention that the Medical bodies here are divided in their views respecting Mr. Headlam's Bill. The University has not as yet expressed its opinion, but it appears to me that it cannot be a gainer by the Bill, but quite the contrary, and for the following reasons:—First, because in using the term University Education, no distinction is made between the Scotch degrees, which are given without instruction in arts, and those of Oxford, Cambridge, and Dublin, in which education in arts is necessary; this is felt as a grievous defect. Secondly, by custom, and by recognition in certain Acts of Parliament, the degree of M.B., or of M.D., of the University of Dublin is a title to practise; but if an examination before the College of Physicians be made necessary, the University degree loses so much of its value. Thirdly, no recognition is made of the Surgical School in the University of Dublin; and fourthly, it seems to me that much of the Professional character will be taken from the Physician by the enactment of the clause empowering him to recover fees by law. The College of Physicians have, however, I am informed, petitioned in favour of the Bill; the College of Surgeons oppose it on the ground that, in order to register as Surgeons, all shall be obliged to undergo examination by Physicians, while the Apothecaries' Hall object to it on account of their exclusion from the registry and from the Examining Board; and all agree in feeling the "*in*justice to Ireland," in her unequal share of representation upon the council.

But on this last head an evident difficulty arises, for to make the representation really effective, the representatives should be men holding high positions in the Profession, and it is very unlikely that such men could absent themselves from their practice for any considerable period of time. It would thus appear that, for various reasons, the great majority of the Profession here is opposed to the measure now before Parliament.

The Professorship of Queen's College, Galway, has become vacant by the resignation of the late Professor. The appointment rests with the Lord-Lieutenant, and will be made in a few days. The candidates are very numerous, including several from the sister kingdoms.

The meeting of the Hospital Grants' Committee, to which I alluded in my last letter, was held as announced, Sir James Pitcairn in the chair, the report of the commissioners was read, and ordered to be inserted on the minutes, and the thanks of the meeting were voted to the Lord-Lieutenant, for forwarding the copy of the report to the committee. A sub-committee was also appointed to draw up a report of the proceedings of the Hospital Grants' Committee since its formation, for the information of the citizens, and for future reference. The abstract of the report I sent you in my last letter from public rumour, was substantially correct; in addition I may mention that measures are being taken, in accordance with the recommendation of the commissioners, to establish a complete School of Medicine in connexion with Dr. Steeven's Hospital.

The ceremony of laying the first stone of the New Museum of Natural History, which is intended to form the southern wing of the Royal Dublin Society's House, was performed on Friday, the 7th instant, by his Excellency the Lord-Lieutenant, in presence of a large assemblage. The day was beautifully fine, and the proceedings passed off with much *éclat*. It is expected that the northern wing, to consist of a public library and National Gallery, under the name of the Dargan Institute, will be commenced in time to admit of its completion simultaneously with that of the portion of the building just commenced.

GENERAL CORRESPONDENCE.

VACCINATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your leading article of January 12, you ask, "Is Vaccination performed with sufficient care?" In reply, I can only say that, as a public Vaccinator, I have always used every endeavour to do it with the utmost care. But again you remark, "It is alleged that the operation of Vaccination is often performed most carelessly." Let us see on what grounds this allegation rests; what reasons can be brought forward in extenuation, if the accusation be a just one; and what remedies can be provided for the future." Now, Sir, I candidly and sincerely believe that the accusation is, generally speaking, an unjust one, and the reasons that can be brought forward in extenuation of it are many, serious, and grievous. In the first place, is not the present Vaccination Act itself an insult, an injury, and a mockery to every legally qualified Medical Practitioner in the kingdom, but still more so to the Union Public Vaccinators? To show you the care and anxiety which some of us exercise in the discharge of our Vaccination duties, I need only tell you that, last year, I went six times to one of my Vaccination stations (a distance of six miles), to perform the operation of Vaccination upon a poor person's child before it took effect. In this instance, I travelled no less than thirty-six miles, paid 2s. for the toll-gates, for the paltry sum of 2s. 6d., being 6d. in pocket, and upwards of 36s. out of it, before I had the satisfaction of seeing eight excellent cow-pox vesicles on the child's arm. Do you, Mr. Editor, call this performing the operation of Vaccination most carelessly? For my own part, I have always endeavoured to select vaccine lymph from the most healthy child, and, when I use it, I generally make six or eight punctures on the arm, after which I exercise the requisite supervision before I give the certificate of successful Vaccination. The other day I went eight miles to a Vaccination station in my Union district, for the purpose of vaccinating children. How many children do you think there were to vaccinate when I got there? Two. Did I vaccinate them? No. Why? Because the parents of the children, who are respectable farmers and yeomen, wished their own Medical attendants to do them. Thus, then, I again travelled sixteen miles for nothing, and had 8d. to pay for toll-gates into the bargain. Again, on January 15, I went a distance of three miles to two other of my Vaccination stations. I found there were four children, of different ages, to vaccinate. The mother of the first child, upon whom I called, wished her own Medical attendant to vaccinate it, he having promised to do so. Well, Sir, the Medical attendant here alluded to holds a similar situation as myself in another District of the same Union, notwithstanding he is *sine diplomate*. This is rather too bad, is it not? I called at another house, but the mother of the child refused to have it vaccinated, unless I would do it off another child's

arm (although her own child was upwards of two months old, strong, and healthy, and the vaccine lymph which I had with me was quite recent and excellent). On my calling upon the mother of the third child (nine months old), she said it was "too this, too that," and the other, so that I called upon the friends of the fourth child; but its mother was from home (this was an unmarried daughter's child), and her father would not take upon himself to give me his consent to vaccinate it in her absence; so that I was obliged to return home without vaccinating a single one of them, and I had nearly lost a midwifery case over them, having been called to one about ten minutes after my arrival, which proved to be fifteen shillings in my pocket the next day. Had I vaccinated all the four children, and missed this Midwifery case, it would have been five shillings loss to me, if not more. I presume it will scarcely be necessary to remind your readers that the first section of the Vaccination Extension Act of 1853, requires that the Guardians of every Parish or Union shall divide such Parish or Union into convenient districts, and shall appoint a convenient place in each such district, etc. Now, Sir, two out of the four of my Vaccination stations are at a distance of six miles from my residence, in Aspatria, and only two miles from the Union town, of which Aspatria is a district. The third and fourth station is about three miles distant from my residence. Can a vaccination station, distant six miles from the residence of a Public Vaccinator, be called convenient? Both at my residence in Aspatria, and at those distant Vaccination stations, not a single parent (although residing in the same place) ever voluntarily brings his or her child to me for Vaccination; I am obliged to go from house to house to ascertain if any child requires Vaccination. Is it at all likely, then, that female parents residing in different parishes, comprised in three distinct Vaccination stations, will take the trouble of bringing their children a distance of one, two, and three miles for that purpose? The very idea of it is quite preposterous. Besides, experience has taught me that the lower orders of the people are so utterly indifferent to the importance of Vaccination, that they will not even give themselves the slightest trouble about it until aroused from their apathy and indifference by some severe and fatal case of epidemic variola. But, indeed, any individual of the meanest capacity might have anticipated the results of the present Vaccination Act from the very first, as the Act itself expressly declares, that parents can have their children vaccinated, either by their own "legally qualified Medical attendant, or by the appointed Public Vaccinator;" and it is well understood by each member of our Profession, that every mother prefers having her child vaccinated by her own Medical attendant, whether he is legally qualified or not. In fact, there is not one parent in a thousand among the lower (if not all) classes of the people, who understands what is meant by "legally qualified Medical Attendant." Now, all the children I have vaccinated at my four distant Vaccination stations up to the present time (January 19) are twelve, for which I have received thirty shillings; travelled upwards of a hundred miles, and paid four shillings for tollgates. A most splendid and profitable Vaccination Act, is it not?

From what I have already stated, it must be self-evident that we Public Vaccinators sacrifice a great portion of our valuable time, and often sustain serious losses at home while discharging our public duties at these stations, for very little or no gain. Besides all this, it is now well known that no Medical Practitioner can obtain any remuneration for the Vaccination of the children of his private patients residing in another Union. I have lost several pounds of money from this alone, and so have many other Practitioners as well as myself. We must have this state of things totally changed; the sooner the better for ourselves. The clerical and legal professions are not under the control and subordination of any body or board of laymen. Why, then, should the Medical Profession be so? Why should it not be placed on an equality with the other two learned professions of Divinity and Law? But who is to blame for all this bad legislation? Are the Poor-Law Boards and the Boards of Guardians?

No, no; by no means. Who then? Ourselves. How? Because from a stupid apathy and indifference to our own Professional interests we suffer the Legislature to make and pass Medical laws, which are framed for nothing but our Professional injury and degradation. But how are we to remedy all the evils and oppressions under which we groan? By the following means:—

1. Let us make laws for ourselves.
2. Let Vaccination and the Medical attendance upon the poor be removed from under the sordid control of the Poor-Law Board, and placed under the supervision and control of a Medical Board or Commission.
3. Let the salaries of the Medical officers of Unions, and the payments for Vaccinations be paid out of the Consolidated Fund, unless a better mode of payment can be adopted.
4. Let us have no Compulsory Vaccination Act (the Act of 1853 having proved a total failure, and having tended to prevent rather than encourage parents to vaccinate their children).
5. Let every legally qualified Medical Practitioner be at liberty to vaccinate, and be paid for each case of successful Vaccination, wherever it may be, out of the Consolidated Fund, unless some better mode of payment can be adopted.
6. Let the appointment of Public Vaccinators, Vaccination stations, and districts be abolished.
7. For each case of successful Vaccination let every legally qualified Medical Practitioner receive two shillings and sixpence within two miles, and for every such case above that distance, three and sixpence or five shillings.
8. Let no one but a legally qualified Medical Practitioner be allowed to vaccinate.
9. Let every legally qualified Medical Practitioner transmit his cases of successful Vaccination to the Medical Board or Commission (if any be appointed) once in the half-year, or annually, for registration.

I am, etc.

E. Wilkinson, L.R.C.S.E., L.S.A., L.M., etc.

Aspatria, February 14, 1856.

TRACHEOTOMY IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to make a very brief reply to the observations of Dr. Richardson.

It is not my intention to enter into any controversy with that gentleman upon the treatment or pathology of Croup, for I should be speedily beaten out of the field by his well-known adroitness at speculating and theorizing on abstruse pathological and physiological phenomena. I will confine myself to plain matter of fact, which may be comprehended by the most humble capacities. Dr. Richardson avers that I made an "entire misstatement" in my observation that he had ridiculed the operation of tracheotomy in croup. I beg, however, to state, that my memory is not treacherous on that point, and if there be any further proof wanted of the truth of this allegation, it will be found in the course of the very observations which Dr. Richardson has made in your Journal of last week, for therein he repeats "that there are certain cases (of inflammatory croup) in which the death is clearly by syncope, the result of fibrinous deposition, and that in these cases the operation is simply absurd." The humble education I have received has led me to understand that to call a thing absurd is to ridicule it, and I think that the majority of your readers will agree with me on this point.

I will not be so dishonest as not to admit that Dr. Richardson confines his ridicule (if he will allow me the use of the term) to the operation in that form of croup where death in his opinion takes place as the result of fibrinous concretions in the heart; but, Sir, I maintain that Dr. Richardson cannot prove that death is owing to fibrinous concretions in cases of true inflammatory croup, and it is to that disease alone consisting of an inflammatory disorder and deposition in the windpipe that my observations were referred.

Dr. Richardson has a perfect right to maintain his own views, in the prosecution of which he has shown an ingenuity and industry which reflect great credit upon him, and when he has clearly demonstrated to the Profession, that in a proportion of cases of inflammatory croup, death is due, not to obstruction in the windpipe, but to fibrinous concretions in the heart, he will have as perfect a right to ridicule the operation of tracheotomy if performed for such cases; but until he is able to effect this object, it would be prudent to refrain from casting obloquy upon a method of treatment hitherto recognized by the Profession as one, under certain circumstances, to be both justifiable and proper.

I am, etc.

Caroline-street, Bedford-square. Henry Smith

WHO ARE THE PROPER OBJECTS OF MEDICAL CHARITIES?

[To the Editor of the Medical Times and Gazette.]

Sir,—In No. 295 of the *Medical Times and Gazette*, is a letter from X. P. asking the above question, and, in reply, I would offer him the experience of the Plymouth Public Dispensary, established in 1798, which has gone on increasing in reputation and usefulness from that time to the present.

Our leading proposition, with reference to objects of the Dispensary, is—

1st. To afford advice and medicine to suffering, industrious persons, who are unable to defray the expense of such assistance for themselves.

2nd. Our next is to disqualify all persons entitled to similar relief from the Parish, Benefit Societies, Masters, etc.; and all servants of subscibers, or of persons in a similar rank or situation with subscribers, are, whilst in place, not held to be proper objects of recommendation.

3rd. Lying-in women are specially excluded, and so rigidly is this rule enforced that, if a woman fall in labour whilst under treatment for disease, she is not attended by any officer of the Dispensary, unless he be employed and paid in the usual way.

Every applicant for relief produces a recommendation from a subscriber. The name, age, occupation, and residence of the applicant are recorded in the Admission-Book. Such as can walk abroad attend the Physician or Surgeon, at the Dispensary, on given days. The others are visited at their homes by the Surgeon's or Physician's Assistant, and by the Physicians when the nature of the case demands it. Accordingly, the condition and circumstances of every patient are well known, and no improper object can continue on the list, without the connivance of the Medical Officer in charge of that particular case.

Our Medical Staff consists of two Physicians, two Surgeons, two Physicians' Assistants, two Dentists, and one Dispenser; and our funds, beside providing Medicines and every requisite Medical and Surgical appliance, enable us to give £50 a-year each to the two Physicians' Assistants and the Dispenser.

I am, etc.

Plymouth, Feb. 26, 1856. J. C. Cookworthy, M.D.

THE LATE COURT MARTIAL ON MR. WILSON.

[To the Editor of the Medical Times and Gazette.]

Sir,—Permit me to call your attention to the enclosed letter respecting the late Court Martial held on Mr. Wilson, Assistant-Surgeon of H.M. Steamer *Rattler*. The unjust severity of the sentence has created a general sympathy in Mr. Wilson's favour, and the whole of the resident Medical men have petitioned Admiral Stirling to this purpose, but without obtaining the slightest interference on his part:—

"Dear Sir,—I will now furnish you with a circumstantial report of the Court Martial on Mr. Thomas Wilson, Assistant-Surgeon of H.M. Steamer, *Rattler*. He was tried on the following charges, *viz.*:—1. For unofficer-like conduct to Lieutenant Wrey, for collaring him and placing himself in an attitude to fight. 2. For being drunk on the 11th of October last. 3. For refusing to obey Lieutenant Wrey's orders when ordered below under arrest. 4. For assaulting a sergeant and two marines in the execution of their duty (when by Lieutenant Wrey's orders they were trying to put him in irons); and found guilty on all, with exception of as much of the first as accuses him of 'collaring Lieutenant Wrey,' which has not been proved; and sentenced 'to forfeit all time of service, pay and prize money, to be imprisoned for 12 months in a gaol in England, and at the expiration of that period to be dismissed the service.'

"The evidence of the Surgeon of the *Rattler*, a gentleman of known probity and integrity, is to the effect, that, 'on the day in question, the prisoner and his messmates being on deck, a fight took place between a dog belonging to Mr. Wrey and one belonging to the Commander, and Mr. Wilson in his endeavours to separate them, accidently struck Mr. Wrey's dog on the ear. On this Mr. Wrey rushed at him, and violently assaulted Mr. Wilson, when he put himself into a threatening position (I should say with the object to defend himself) but did not return the assault made on him.' For this and for telling Mr. Wrey that he would not permit such conduct towards himself, he was ordered under arrest, but refused to obey that order, until the witness advised him so to do, when he said that he would go below, and retired to the gun-room, his proper mess-place, in fact the only one remaining for him who does not enjoy the *privilege of a cabin*.

"After he had been sitting quietly in the gun-room for a short time, a party of marines were sent, by order of Mr. Wrey, to remove Mr. Wilson into the steerage, and to put him under close arrest (an act of unwarranted severity, it seems). The prisoner at first remonstrated against this step being taken, but according to the evidence of the Sergeant of Marines, (another witness for the prosecution,) he persuaded the prisoner, and Mr. Wilson was placed under close arrest in the steerage, a laughing-stock to all the occupants of the lower deck. Such treatment would naturally arouse the feeling even of one less irritable than the prisoner, who endeavoured to proceed on deck, no doubt for the purpose of inquiring into the cause of the unwarranted severity; and when the sentries, to whose charge he was committed, attempted to prevent him, he, unable to control his passion, used threatening language towards them, and struck them. Mr. Wrey for this offence ordered him to be put in irons, and kept him so for some time.

"That the violent assault of the prosecutor was the commencement of the affray, has been stated on oath by one of the witnesses; and there are several witnesses who disprove the charge of drunkenness—I believe they are the Surgeon and the second Engineer. The statement of the former deserves much weight, as he is usually appealed to in such cases.

"It has also been stated in evidence by the Surgeon that Mr. Wilson had gone to the gun-room, some time before the marines made their appearance.

"Mr. Wilson's gallant services, as well in H.M. Steamer *Hermes* during her engagement with pirates, as in his fearless exposure of his life when small-pox broke out on board the *Rattler*, and his courage, it may be termed heroism, when lately, in the Kulan expedition, he saved the lives of his commander and of one of the crew, at the imminent peril of his own, these actions certainly ought to have been taken into favourable consideration by his judges. I do not intend to impugn the justice of Naval tribunals in general, but I think it worthy of remark that in one case a felon's punishment is dealt out to an Officer who commits a breach of discipline; while another against whom the charge of drunkenness has been fully proved (this latter being the son of an Admiral) is dismissed his ship, and, with a slight loss of time is permitted to pursue his career in the Naval service, with every probability of speedy promotion through family interest.

I am, etc.

Hong-Kong, December 15, 1855. A Subscriber.

MEDICAL PROFESSION BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Though for a good many years retired from practice, I read with attention your excellent Journal, and take otherwise a deep interest in my Profession. It is, therefore, with satisfaction and thankfulness, that I witness the progress of a legislative enactment, having every prospect of passing, which shall confer a rank and character upon the Profession, never yet fairly enjoyed. The Bill now before the House of Commons, may not be all that can be wished. It is certainly in many of its features altered from that, which, upwards of twenty years ago, I had the opportunity of discussing as a member of a Committee of the Medical Provincial Association. But it preserves the main principles of the measure then proposed, and the Registration Clauses alone ought to commend it to every one seeking a just recognition of the dignity of his Profession. It is well that every provision of the Bill should be duly weighed in Committee, but alas! after what we have seen reported on the second reading, what have we to expect from honourable members on the part of the Profession? One portion appearing probably as the advocates of corporations, retentive of honours and emoluments; and another not feeling ashamed to affect a jealous tenderness lest the public should be rescued from the malpractices of rogues and impostors! Let us not lose the substance in straining for the shadow.

The Society of Apothecaries solicits attention to the clause (39) for the suppression of irregular Practitioners. They, and I observe, several of your correspondents, object that it is

not sufficiently stringent, inasmuch as it permits ignorant persons to practise by simply discarding Medical titles. In my humble opinion the words in the said clause "who shall wilfully and falsely pretend to be" are ample for the purpose required.

I must be permitted to add, that it is humbling to observe among your correspondents some who would really lower the public estimate of Medical men by calling for specific enactments against "bone-setters," pseudo "Surgeon-Dentists," etc.; as if the Profession could be injured generally to any appreciable extent by the impositions of such persons. Before we can suppress pretenders, you must have a wiser world. But let me whisper in the ear of my younger brethren, that they are more in danger from irregularities too common among themselves, than from the impostors with which the world has always been, and ever will be, infested.

Let Medical Practitioners be true to themselves, act to each other fair, open, and honourable, and the register of their qualifications will be their most efficient protection. I am, etc.

March 10, 1856. An Old Practitioner.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have waited patiently in the expectation that some other person would bring before the public the objectionable features of Mr. Headlam's Medical Bill; but, as no one has hitherto done this, I trust you will allow me, through your columns, to arouse the General Practitioners of this country to a sense of their danger. The tendency of the Bill, as it at present stands, will simply be to legalize the practice of unqualified persons, and to confine to an inferior class all those who are unwilling, though fully qualified, so far as examinations will make them so, to commence life as Consulting Practitioners.

This does not appear at first sight; and no doubt many, like myself, have given an assent to the general principles of the Bill as they were stated in the circular of the Association (viz., a Representative Council and Uniformity of Qualification), who do not find that its details correspond with this outline.

Without entering fully into the question at present, I would merely point out to my brother Practitioners the following facts:—

1.—That in the new Medical Council the only Medical Corporation which has consistently maintained the standard of education among General Practitioners is to be excluded; and, while every examining body, down to the Faculty of Glasgow, is to have a representative at the Council, the Apothecaries' Company is not to have this privilege.

2.—That, instead of one uniform qualification being required of all, the Profession is to be divided into two great classes of Physicians and Surgeons, who must at once register in one or other class. This distinction, which in the country is daily becoming less marked, is to be restored and legalized, in order to confine, as of old, consultation practice to a few, who have means sufficient to enable them to bide their time in comparative idleness, and exclude those who, with equal Professional qualifications, are content to mature their experience in general practice until the confidence of the Profession and the public enables them to employ the hitherto unused M.D. Under the new law such men will be required to elect either at once to become Physicians or to abandon for ever the grade for which their education has qualified them. The necessary tendency of such a law must be to lower the standard of education, by depriving students of the inducement which makes so many of them qualify themselves for a rank higher than that which they at first assume.

3. Consistently with this arrangement for maintaining the supremacy of the Physician—the College of Physicians is not only to have the sole power of admitting graduates to the dignity of a Physician, but is also to examine the Surgeon before he is allowed to practise, and will thus be able to draw a distinct line of demarcation between the two classes.

4. That provided a man does not call himself or assume to be, a Doctor, that is, if he styles himself a Druggist, Chemist, or Herbalist he may with impunity practise medicine. As in the case of the "Ecclesiastical Titles Bill," the titular distinction must be avoided, but the thing pretended to be abolished remains as it was, or is even fostered by an unwonted immunity.

Allow me further to occupy your space, to direct the attention of my fellow-graduates to the letter of "Cantab." which so beautifully illustrates the treatment we might expect from some Physicians, were their power equal to their good-will. The *gentleman* who so elegantly describes as a *mongrel class* a body of Practitioners who have passed an examination confessedly unsurpassed in severity by any in the world, and requiring a most extended course of previous study, does well to shelter himself under the name of the University which he honours by his adoption. I am, etc.

Southampton, March 4, 1856. Charles Pardey, M.B. Lond.

POOR-LAW MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—Again allow me to thank you for the powerful aid you have rendered the cause of the Union Surgeons; without the press, individual efforts would have been fruitless, without its advocacy, I could not alone have induced 350 of our Medical brethren to tender their support. There is, however, still much to be done; apathy and supineness at a time like this, ill become men of a learned and liberal Profession. I have already addressed one Surgeon in each Union, requesting him to call his colleagues together and ascertain their sentiments. Upwards of 70 Unions have responded, and others are coming in daily. It can no longer be considered a private appeal, but rather that of a body of 350 men. Let me therefore again invite the co-operation of the officers of each Union; let those who have not already joined, meet speedily; let him who has the charge of the House, as he is generally centrally situated, now consider it his especial duty to assemble his brother officers and elicit their sentiments. A general meeting will shortly be held, at which as many Unions as possible should be represented; the great question for consideration will then be, whether we shall endeavour merely to ameliorate our present position, or propose to remodel the whole system and place it on a firm foundation; whatever may be the decision, our situation must be benefited, as it is impossible to be worse than it now is. We shall not only have to lay before Parliament the nature of our grievances, but also the remedy. Foremost stand the insufficiency and inequality of the salaries, which I will prove by facts, and here I must quote largely from the report on Medical Relief, ordered to be printed by the House of Commons in 1854. Mr. Cane, of the Poor-Law Board, in his evidence, states, No. 166:—"Taking the whole kingdom together, without intending to be precisely accurate, my impression is, that the payment per case to a Medical Officer would not average more than 3s." For this sum we have to find drugs, which, according to No. 3269, "cost in Dispensaries, 2s. 1½d., and, in Hospitals, 4s. 4½d. per head, or a mean of more than our average payment of 3s. throughout the kingdom." At 2035 it is stated, "the average expense of the Gloucester Dispensary for ten years was about 5s. 6d. per case, including all expenses." At the Weymouth Dispensary, it was last year 5s. 3¾d. for Medical treatment only. In addition, we have to find horses, which must be highly fed, and frequently replaced; carriages, which need continual repair; servants, tolls, and taxes, to pay; and, lastly, we have an enormous amount of mental and bodily fatigue to undergo, to be out at all hours and in all weather, exposed to the pitiless storm, frequently drenched to the skin, and passing the greater part of many a night in some wretched hovel. No marvel that our days are shortened, and the average duration of our lives is less than in any other Profession, and that thus prematurely cut off we too frequently leave our wives and children penniless.

The Poor-Law Commissioners have themselves acknowledged the injustice of this paltry payment, by their recommendation "for the relief of permanent poor, (Arts. 75 and 76 in the Consolidated Order,) which states, that the Medical Officer should receive 6s. or 6s. 6d. per case in the rural districts, and the remuneration per case for those not on the pauper-list may reasonably be on a somewhat higher scale; but the Board are inclined to think that it will not be found necessary to exceed 10s. per case." This recommendation, though made in 1839, and repeated in 1841, has not been acted on, but it has been left to the Guardians to carry out, or not, as they please, and the result is known. The Poor-Law Board may endeavour to shelter itself under the plea that the order has been issued; but that is not enough, it ought to have been enforced long

ere this, backed as it was by the expressed opinion of the House of Commons in 1854, "that the salaries should be revised and increased." The Rev. E. J. Howman (No. 1992) says:—"I do not believe that £300 a-year, which might be a remuneration in 1837, when the population was only 16,000, can be a remuneration in 1854, when it is 21,000. I think it works ill for all parties." As to the uniformity of payment, we have it in the evidence of Mr. Lord (No. 3269), that "the rate of payment varied from 3d. to 14s. 4d. for each case of sickness." In the Weymouth Union, it is now from 1s. 2¼d. to 14s., the districts being equally distant. On the 26th ult., Mr. Bouverie, President of the Poor-law Board, stated, in reply to Mr. Pigott, "that, in regard to the Medical districts and Medical Officers, these were matters not immediately under the control of the Poor-law Board, they being settled in the first instance by the Guardians;" therefore, to apply further to that Board is vain. To the Guardians we have repeatedly complained, and have received no redress. As a last resource, we must appeal to the House of Commons, and demand justice at its hands, which I feel confident will not be denied to the firm and temperate prayer of 3000 Professional men. Formerly, we were required to attend paupers only, the labouring classes having their clubs; these have, however, gradually fallen off, and the Guardians, with wonderful liberality!—it being entirely at the expense of the Surgeon,—have given them orders for Medical assistance, and by this means have increased our labour fourfold, the paupers in 1853 being less than a million, while the working classes (No. 2626) were estimated by Henry Mayhew at four millions. Half of these, it is computed, require Medical aid annually, and no doubt ought to be relieved at the cost of the State; but such order for relief should not be left to the judgment or caprice of a Relieving Officer, to give or withhold.

Let a rule be laid down, that the labouring man, with a wife and children, having an income of not more than 15s. or 20s. a-week, and a single man 10s., have a claim on the Medical Officer, and let him consult any one he prefers, provided he be on the Staff of the Board, and within an equal mileage distance of the nearest Resident Surgeon (Nos. 1365, 1656, 2022), but do not compel him to go to the Relieving Officer, who, perhaps, may be miles away, but afford him facilities for obtaining more immediate relief. At 2626 it is stated, "the majority of paupers, at least 50 per cent. of them, would not have become paupers had they received proper and suitable Medical aid at the moment they required it; therefore the rates from this cause have been increased certainly one-third." Pay the Surgeon for the work he actually performs, and not, as now, for what he is expected to do; give him 5s. per case for all who seek advice at the surgery, and 7s. 6d. for those who reside within one mile, and who require his assistance at home, with 2s. extra for every mile beyond; an average calculation being made to the most centrally-inhabited part of each village for the sake of convenience in payment. It is stated (2242) that "in Manchester the Medical men are paid at the rate of 5s. per case." Each order should continue in force three months, after which a fresh order should be procured; vaccination, midwifery, and items now considered extras, to be included. Instead of being under the Poor-Law Board and Boards of Guardians, place the Medical Officers under a Board of Health, the Medical department of which should be entirely conducted by Medical men. A registry of diseases should be made and published in the same manner as births, deaths, and marriages, so that the locality of particular diseases may be ascertained, and measures taken to eradicate them, or, at least, to mitigate their periodical visitations. Medical Inspectors, like the Assistant Poor-Law Commissioners, would here be found a most useful body of men, and would be the medium of communication between the Board of Health and local Boards; the latter, excepting in London and a few large towns, having no one to give them sanitary counsel.

Let this plan be fairly carried out, and, ere many years have elapsed, the nation will have gained a more healthy labouring population, and, as a consequence, a material reduction in the poor-rates; it is estimated (No. 2624) "the number of paupers, made paupers through sickness, constitutes 72 per cent. of all those made paupers through all cases."

Certificates of sickness may be furnished to the poor, requiring the assistance of the Guardians, and extra nourishment suggested in the same way: further, there need be no connexion with the Boards of Guardians or the Poor-Law Board. Payment should be made from the Consolidated Fund, as many of the diseases, incidental to the poor, arise from want of proper sanitary arrangements, and, therefore ought to be paid for by the State: the evidence No. 1606 fully bears this out.

The majority must now decide whether we shall endeavour to remodel the whole system, or merely to improve our present position; let me, therefore, once more entreat the Officers in each Union to meet without further delay, appoint a local Secretary, collect subscriptions, as expenses must be incurred, and forward to me their opinions, that, when a general meeting takes place, propositions may be brought forward that will, if possible, meet the concurrence of a large majority.

I am, etc.

Richard Griffin.

12, Royal-terrace, Weymouth, March 15, 1856.

LOCAL ANÆSTHESIA BY COLD.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your valuable Journal, bearing date February 16, there appears a letter, signed by Dr. James Arnott, on the late unsuccessful treatment of certain cases by local anæsthesia induced by cold, at Guy's Hospital, and in which the writer seems to have greatly misunderstood me, as to the length of time the freezing mixture was applied, and in respect also to some other points.

When the doctor was at the Hospital I told him that I thought the ice had been applied for about ten minutes, but that I was uncertain, thinking that, as so much depended on the exact time of its application (in his own estimation), he would, at least, have had the courtesy to have referred to the Surgeon of the case before making use of the information he had received, to ascertain if it was correct.

However, in this I was mistaken; and, on referring to the notes of the case, I found hat it was only six minutes, and not twenty, as reported by the doctor.

Now, as regards the second application of the ice, that certainly was not done, or ever mentioned by me that it had been.

Next, as to the sloughing, it is certainly not remarkable that the worthy doctor could not detect it; but all I can add is, that it had been clearly visible to the whole Medical School, who from time to time had attentively watched the case.

But be this as it may, it is certainly strange that, when in another case, which shortly after presented itself, when the freezing mixture was applied in such a manner that even the most fastidious could not object, and for a period only of seventy-five seconds, very similar results were the consequence. Having been Mr. Birkett's dresser in these cases, and also having seen several others, I have had a fair opportunity of judging of the disadvantages which follow the application of such measures.

I am, etc.

Henry Penfold, M.R.C.S.

Brighton, 20, Middle-street.

LEUKHÆMIA OF VIRCHOW.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some of your readers may have noticed a letter of Professor John Hughes Bennett, in the March number of the *Edinburgh Medical Journal*, in which he reiterates his claim to the discovery of that peculiar pathological condition named above, with what success I leave the Profession to determine. My present object is to point out to those interested and instructed in the claims of Professor Virchow, that Professor John Hughes Bennett has spontaneously, though, no doubt unwittingly, testified to the originality of his discovery. Professor Bennett says in his letter—"M. Blache's case bears no relation to that new pathologieal state discovered by me on the 19th of March, 1845, and which was first seen and confirmed by Virchow on the 1st of August following." Nothing can be plainer than this acknowledgment as to the exact date of Virchow's discovery; and it is exactly what that excellent observer has claimed for himself in this matter; but Professor Bennett's assumption, that on the 19th of March, 1845, he discovered the condition Virchow noticed on the 1st of August in the same year, we cannot admit, for the best of

all reasons, because Professor Bennett does not admit it himself. In the *Monthly Journal of Medical Science*, for May, 1850, Professor Bennett is reported to have drawn the attention of the Medico-Chirurgical Society, at a meeting on the 3rd of April, to a case of "white blood," in the Male Clinical Ward of the Royal Infirmary. Regarding this case, he says, "On examining a little of his blood microscopically, a very large amount of corpuscles was discovered, quite undistinguishable from pus corpuscles. There were many features of interest in this case; it was the second which had fallen under his (Dr. Bennett's) observation, and he proposed at some future period to lay before the Profession the conclusions to which it led. Meantime any member of the Society had an opportunity of examining the case in the Infirmary." It is thus clear from Dr. Bennett's own showing, what, indeed, has long been well known to all students of the subject, that on the 19th of August, 1845, Professor Virchow accurately described a peculiar pathological condition of the blood with which Professor Bennett's acquaintance on the 3rd of April, 1850, (five years later,) was so limited and incorrect, that he described it as due to corpuscles in the blood, "undistinguishable from pus corpuscles." Yet he has continued and still continues to call Virchow's discovery—his own!

We shall not attempt to characterize Professor Bennett's conduct; but we beg to congratulate Professor Virchow, for—

"MAGNA EST VERITAS ET PRÆVALEBIT."

March 3, 1856. E. T.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEBRUARY 26, 1856.

CÆSAR HAWKINS, ESQ., President, in the Chair.

A PAPER was read

ON MYELOID AND MYELO-CYSTIC TUMOURS OF BONE; THEIR STRUCTURE, PATHOLOGY, AND MODE OF DIAGNOSIS.

By HENRY GRAY, F.R.S., Lecturer on Anatomy at St. George's Hospital.

The author detailed the history of nine cases of tumours of this form removed during life, with a minute description of the results of his own microscopical examination of six of the tumours. The results at which he arrived were as follow:—That these tumours were not of a malignant nature, although in several of the instances given they had been so regarded both previous to and after removal by operation; that, on the contrary, their minute structure bore the closest analogy with the normal constituents of the marrow, and other elements of bone in the early periods of life; that their growth is confined to the osseous texture, or its investing membranes, the periosteum and dura-mater; that they occur at a period of life when the normal constituents of the medulla exist in the greatest amount, and are developed in those parts of the osseous system in which those structures exist in a most distinct and well-marked form (all the cases given took their origin in the epiphysal ends of long bones); that they are occasionally mixed with the other elements of bone in a rudimentary state, as fibrous tissue and cartilage, and even with bone itself; that they may probably occur in any bone; that since they are thus found to consist of an abnormal amount of some of the normal constituents of the medulla, the medulla cells, the name "myeloid" given to them by Mr. Paget is most appropriate (the author proposes to add the term "cystic" to such of them as present a mixture of cysts with the structure above described, and regards their fibrous element as most probably derived from the organization of lymph effused as a result of chronic inflammatory action, or from some abnormality in the development and growth of the fibrous element of bone); that they occur in all the cases at present recorded at an early period of life, and that their growth is generally much less rapid than malignant disease, both which facts afford important diagnostic marks to distinguish them from malignant growths; that the absence of the malignant cachexia, of glandular lymphatic enlargements, and of disease in internal organs, combined with the facts that although these tumours attain occasionally a considerable size, yet they present no tendency to ulcerate or protrude externally, and generally retain some surrounding shell of bone within which they have grown, serve as additional aids to the Surgeon in forming a diagnosis between myeloid and malignant growths; that they do not return when entirely removed; and that for all these reasons they are to be regarded as innocent tumours.

The President said, that if the observations of the author were correct, the common observation of surgeons as to the less malignancy of cancer occurring in bones than elsewhere must be somewhat modified. Most surgeons would acknowledge that the medullary and the scirrhous forms were as malignant in bones as in other structures, and, consequently, it was the hæmatoid form, as it was commonly called, to which the diseases in question bore a resemblance, and from which they must be distinguished. The author had not referred to any means of diagnosis locally; indeed, he (the President) feared there was not that local distinction between the diseases that could be desired.

Mr. Gray referred to the specimens of the same disease recently brought before the Pathological Society by Dr. Bristowe, and said that the myeloid tumours were of such rare occurrence that he had not been able to make sufficient observations to establish a diagnosis such as the President had mentioned. Mr. Gray also stated, in answer to Dr. Mayo, that the rate of increase in the myeloid tumours was variable, being sometimes extremely rapid. In answer to Mr. Ward, he said he could form no opinion as to whether fibro-cystic tumours were more likely to recur than the myeloid form.

Mr. Paget thought the President's question as to the possibility of diagnosis during life could hardly be answered satisfactorily. In all the cases referred to, he believed that removal of the disease was undertaken in the full belief that the tumour was of a malignant kind, especially in those cases in which limbs had been amputated. The probability, therefore, was that we were not acquainted with the means of distinguishing the diseases during life, unless in those comparatively rare instances in which the disease had existed for many years previous to the question of amputation being considered. But there was another view to take of the question. Many surgeons, on the occurrence of tumours of very rapid growth, especially when they affected the shaft or lower part of the femur, would say it was entirely useless to operate, for the disease being that of medullary cancer would certainly return. The fact, however, that cases of medullary cancer might be confounded with diseases that would not recur, was enough to lead the surgeon to remove limbs or portions of bone with much greater freedom than he would if all diseases were to be regarded as cancerous. As to the relative rate of growth, he did not think that could be taken as a diagnostic sign except in a very few cases. But if it were true that the tumours which were not cancerous would grow very rapidly, that fact would shut out the argument of those who would say, that because a tumour had grown rapidly the limb ought not to be removed. Rapidity in growth was observable in some cases of cartilaginous tumour. He remembered one such case in which the tumour had grown to an enormous size, leading to the conclusion that it must necessarily be cancerous. The limb was not amputated, and the patient died. After death the tumour was found to be cartilaginous, showing that amputation should have been performed. The author had limited his cases to long bones; but he believed the disease occurred almost as frequently in some other bones, especially the jaw-bone. He remembered the case of a young woman, who had, some years ago, a tumour in the upper jaw. The tumour was extirpated, but not very completely, once or twice; and, on a third occasion, it was completely removed, but it occurred again in the same jaw-bone. While the propriety of removing the bone was considered, a similar disease appeared in the opposite jaw-bone, not extending by continuity, but a separate growth, and at the same time there appeared something like a tumour on one of the parietal bones. The disease was accordingly set down as unquestionably cancerous, occurring in three bones at the same time. However, the patient left the Hospital, and afterwards returned; the tumour (as it seemed to be) on the parietal bone having disappeared. The woman having lived so long with the other tumours, some doubt was felt as to their cancerous character; and, accordingly, one jaw-bone was removed, and part of the other, the operation being left incomplete, owing to the dangerous condition of the patient;

the wounds, however, healed perfectly, and the patient was now, seven or eight years having elapsed, in perfect health. In some cases, he believed the cystic character of the disease was carried almost up to the point of a complete removal of all solid structure, leaving nothing but what seemed a bony cyst, filled with bloody fluid. There had been several of those cases recorded as bloody cysts in the ends of bones, and the general impression had been that they were of cancerous origin. One of them, however, he was convinced, was a case of myelo-cystic tumour. The patient was operated on fifteen years ago, but was still in the enjoyment of good health. With regard to the question of the veins, supposing that myeloid tumours were developed through the medium of the blood, this would not justify the confounding of the disease with the cancerous form; for substances generally most distinct from cancerous might, if by anything like accident they found their way into the lymphatic vessels or veins, propagate themselves to any part where the blood would carry them.

The Society then adjourned.

HARVEIAN SOCIETY.

February 7, 1856.

Dr. Ramsbotham, President.

Mr. Winchester read a paper on a new method of treating

FRACTURES.

The object of this paper was to establish a fixed principle for the guidance of the Surgeon in the treatment of fractures, the want of which the author considers has been the cause of all the uncertainty, anxiety, and failure, hitherto existing. Surgeons should not be content with partial, but should aim at complete success, or the perfect restoration of the limb to its normal state. So varied are the limbs of different individuals, that unless the splints themselves have the power of being adjusted to the peculiarities of each case, it is impossible to preserve the natural form. The two halves of the body being symmetrical, the one can be used as a guide to the other. The inspection of the sound limb is of great value as a means of diagnosis, and if so, how much more valuable in a practical point of view, to be enabled to model the sound and healthy limb, and to use such model as a support to the injured or diseased one. The length by admeasurement alone is no positive criterion, neither is the knowledge of form conveyed by the eye simply of much use, unless we are able so to regulate the apparatus to preserve such form. The length, to be correct, must depend upon the curve of the limb, for as a curved line between two fixed points is longer than a straight one between the same two points, so the making a curved limb straight must either lengthen such limb, (such cases have occurred,) or else admit of a certain amount of displacement, whereby the same length may exist between the same two points. It is as easy to preserve the natural form of a limb, whether the practice be simple, compound, or comminuted, as it is to allow it to assume, or by improper instruments to give it, (and this is the direct tendency of all the ordinary forms of apparatus,) an unnatural one. Immediate reduction should be practised as a saving of time and suffering to the patient. Screws, for the purpose of extension, should be discountenanced, not only as unscientific and barbarous, but as unnecessary and injurious. Extension and counter-extension must coexist, and, therefore, permanent extension must be injurious, from the pressure on the points of resistance; and any stretching beyond what is natural, fatigues the muscles, irritates the patient, and impedes union. Retention, then, is the point of greatest importance; the apparatus, having the natural form given to it as above described, affords perfect support throughout the entire shaft of the bone; supplying that resistance externally, of which the muscles have been deprived internally, preventing their contraction, and consequently avoiding displacement. The adoption of the above principle affords a degree of confidence, precision, and certainty, unattainable by any other means, by the exact position which it ensures and preserves. The physiological relations and functions of the part are restored, absorption and deposition go on more readily, the patient's suffering is greatly diminished, and Nature, having only to repair, does her work speedily and perfectly. One point of great importance in fractures of the leg, but which has hitherto been entirely neglected, is that of allowing the apparatus to move freely with the limb whatever its motions. Splints are fixed either by a cross-bar at bottom, or by screwing or tying to the bedstead; the result of this is, that the lower or separated portion of the limb, becomes one with the splint, and therefore immovable, rendering the seat of fracture the axis of motion, which in all cases retards, and in some even prevents union altogether. In fractures of the thigh, however, in the upper portions of it where there is not room above so to secure it to the splint as so allow of motion from the hip joint, it becomes necessary to fix that joint, by securing the splint to the pelvis, in order to prevent the natural tendency to eversion, and a cross-bar at the bottom would facilitate it, or prevent lateral motion, but at the same time freedom of longitudinal motion should be allowed, or else in oblique fractures, overlapping would be the inevitable consequence. The starched apparatus was objected to as an early application, inasmuch as according to the present method of applying it, exact position cannot be preserved, and its retentive power being equal for a bad as a good position. The plan recommended, in order to obtain the best results from its use, was to apply it under many tailed bandages, by this means the limb remaining at rest during its application. The causes of displacement are avoided, and the process simplified, (laterals of moistened pasteboard, or folded linen, being of course used,) an ordinary assistant being alone necessary, and the temporary artificial support having the natural form given it, as above described, such form would be preserved during the drying of the starch (a). The author exhibited the various forms of lateral and posterior apparatus he has invented to carry out the above principle, suited to simple, compound, and comminuted fractures, some of which have already been described in the *Lancet*, *Medical Times and Gazette*, and *Association Journal*. The author stated, that in practice the instruments have realized his most sanguine expectations. All the cases in which they have been used, terminated successfully and in an unusually short space of time, fully proving the correctness of the principle, and that the nearer the parts are placed in their natural position, the less the time required for restoration. All the patients have expressed themselves grateful for the ease and comfort afforded them by their use.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Friday, March 7.

THE BURIAL-PLACES OF THE ENGLISH IN THE CRIMEA.

Sir J. Fergusson called the attention of her Majesty's Government to the necessity of taking steps for obtaining a pledge from the Russian Government to secure that the graves of the British officers and soldiers in the Crimea should be respected, in the event of the positions at present occupied by the allied armies being evacuated.

Lord Palmerston said, that the subject would not escape the attention of the Government during the present negociations. He thought no difficulty would be offered to it by the Russian Government, which would act in accordance with the practice of civilized nations. Russia had shown no want of consideration for the living at Kars, and he had no fear but that she would respect the graves of the dead in the Crimea.

UNION OF THE UNIVERSITIES OF ABERDEEN.

Mr. Layard asked the Lord Advocate whether it was the intention of the Government to introduce any measure this session, for the union of the Universities of Aberdeen.

The Lord Advocate said, not at present; but he hoped to do so as soon as the Universities had come to a unanimity of feeling on the subject.

IN COMMITTEE OF SUPPLY.

Mr. Montague Chambers said, with respect to the Surgeons and Assistant-Surgeons at the arsenal, that some complaints had been made respecting them. It appeared that they did not attend before ten o'clock in the morning. He knew a case of a man who had received an injury at seven o'clock in the morning, and it was entirely owing to accident that he was attended to. He thought some arrangement should be made in order to secure proper Medical attendance at an earlier hour than it could be procured at present.

(a). The best time for applying it is from the 14th to the 21st day, when all swelling having subsided the exact position can be ascertained.

He also objected to the practice which he understood of the workmen subscribing weekly towards the incomes of the Medical officers at the arsenals.

Mr. Monsell said that the appointment in question was only recently made, and the whole of the salaries were given in the estimates.

MONDAY, MARCH 10.

MORTALITY IN THE CRIMEA.

Viscount Ebrington gave notice that on an early day he should move a resolution to the effect that the excessive mortality in the Crimea had been occasioned through bad sanitary regulations.

ST. PANCRAS WORKHOUSE.

Sir J. Pakington asked the President of the Poor Law Board what steps had been taken to carry out the report of Dr. Jones with respect to the state of St. Pancras Workhouse,

Mr. Bouverie said he had directed the report in question to be transmitted to the managers of the poor of St. Pancras. That body has since been changed by their local acts, but active steps were now being taken to ameliorate the condition of the inmates and improve the workhouse of the parish of St. Pancras.

WEDNESDAY, MARCH 12.

MEDICAL PROFESSION BILL.

Petitions were presented by Viscount Newport, from places in Shropshire; Mr. B. Hughes, from several Medical Practitioners of Bangor, Carnarvonshire; in favour of this Bill.

VACCINATION BILL.

On the order of the day for the second reading of this bill,

Mr. Barrow said he had only received the bill that morning, and he thought many of its provisions most objectionable. He suggested that it be postponed till after the recess.

Dr. Michell said the effect of this bill would be to slay the innocents, to deteriorate the human race, and to propagate smallpox. Vaccination was no preventive to smallpox, which he should show when the bill came on for discussion.

Mr. Cowper said, as the bill had been delivered so short a time, he could have no objection to postpone it till after the Easter recess.

The bill was then postponed till the 31st March.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW SURGEONS.

PRESTON UNION.—At a meeting of the Medical Officers of the above Union, held this 5th day of March 1856, present: Messrs. Spencer, Haldan, Corless, Hall, Pilmington, Noble, and Eccles; Mr. Spencer in the chair; it was resolved:—1. That the members of the above Union form themselves into an Association, and contribute to the fund to enable Mr. Griffin to defray the expenses incurred by him on account of the movement for ameliorating the condition of Union Medical Officers. 2. That this Meeting concur in the views promulgated by Mr. Griffin in furtherance of the interests of the Union Surgeons, and beg to tender him their best thanks for the zeal and ability already displayed by him on their behalf 3. That Mr. Spencer be appointed Treasurer and Local Secretary, and that he be requested to forward the resolutions to the Medical Press and to Mr. Griffin, with a subscription of 5s. each.

GODSTONE UNION.—At a Meeting of the Medical staff of the Godstone Union, held at Godstone, March 10, 1856, present: C. M. Thompson, Esq., George Chapman, Esq., Dr. Bowlger; it was resolved:—1. That the Medical Officers of this Union do tend in their adhesion to the movement now originating by Mr. Griffin of Weymouth, for the better regulation of the Medical relief of the poor; and do promise their co-operation, so far as regards the general principle of the movement. 2. That the Medical Officers of this Union do form a Local Committee; and that Dr. Boulger of Bleckingly be nominated Secretary. 3. That a subscription be collected from each Medical Officer of 5s. per quarter to defray incidental expenses. —EDWARD BOULGER, Chairman.

DR. GUYON, who is at the head of the Medical Military Service in Algeria, has been nominated a corresponding member of the Academy of Sciences.

NEW VACCINATION BILL.

THIS Bill to alter and amend the Acts relating to Vaccination repeals, after this year, the existing Vaccination Acts of the 3rd and 4th and 4th and 5th years of the reign of Her Majesty, and will come into operation itself on January 1, 1857, being applicable to England alone. The expenses of the act are to be defrayed as part of the expenses of Medical relief in and for the Union or Parish where they are incurred, provided that Vaccination is not to be deemed parochial relief, or to disqualify the applicant from exercising any right or privilege. Guardians of the poor may contract for Vaccination, under the sanction of the Board of Health, with a "legally qualified Practitioner." The amount of remuneration provided by such contract will depend on the number of successful Vaccinations of persons heretofore unsuccessfully vaccinated. Vaccination districts are to be set out by Guardians and overseers. During the winter months the Guardians may require the Public Vaccinator to vaccinate at the residence of any new-born child. Clause 11 requires the parent or guardian of every child born in England on or after January 1, 1857, to bring the child to the Public Vaccinator within four months after birth, unless the child shall have been previously vaccinated. The child must be again brought to the Vaccinator for examination on the 7th day after Vaccination, and the operation will be repeated, if necessary, at the same interval of seven days, until the vaccination proves successful, or a certificate of insusceptibility to vaccine disease is awarded. A regular report of vaccination cases is to be sent to the Registrar-General. Clause 16 imperatively requires the vaccination within four months of the 1st of January, 1857, of every child in England who has had neither the cow-pox nor the small-pox. The Public Vaccinator is to receive a fee of 2s. 6d. (at least) for every person successfully vaccinated at his own residence, or two miles therefrom, and a fee of 3s. 6d. for every person successfully vaccinated at any place more than two miles distant from his (the Vaccinator's) residence. These fees, however, will not be paid by the guardians in the event of the parent of the child making any payment to the Public Vaccinator. Medical Practitioners, not Public Vaccinators, will receive a fee of 1s. for a certificate of Vaccination or of insusceptibility. The registrars of births and deaths will be required to give due notice to parents of the necessity of bringing their children to be vaccinated, and they will receive 3d. for every child certified under the Act, if they have performed the duty or duties by the Act enjoined. In the event of an outbreak of small-pox, and its becoming endemic in any part of England, the General Board of Health is armed with full powers to issue special regulations for the prevention of the spread of that most loathsome of pestilences. Clause 27 is directed *in terrorem* against parents who may neglect their bounden duty to bring their children to be vaccinated, for in the case of the death from small-pox of any child born since the 20th of August, 1853, an inquest will be specially held on the body of the victim, and if it shall then be proved that the child was not vaccinated, a verdict to that effect will subject the offending parent or guardian to a penalty of 20s. The same penalty will be levied on general offenders against this act, with an extra penalty of 5s. for every day during which the neglect to obey its enactments is persisted in after due notice. Persons guilty of what may now be branded as the crime of inoculation will, on summary conviction, be sentenced to one month's imprisonment, but the act does not say whether hard labour is to be added. The execution of the act is to be reported upon annually by the General Board of Health.

MEDICAL NEWS.

SIR GEORGE GREY has appointed this day to receive a deputation from the London Society of Apothecaries, in reference to Mr. Headlam's Medical Reform Bill.

ELECTION OF HEALTH OFFICERS.—The Vestry of St. Pancras have reduced the number of Candidates for the appointment of Medical Officers of Health to four. The four thus selected are Dr. Hullett Browne, Dr. Hillier, of University College Hospital, Mr. Rainey, of St. Thomas's Hospital, and Dr. Fraser. The election will take place next week.

APPOINTMENTS.

FARRINGDON GENERAL DISPENSARY AND LYING-IN-CHARITY.—Mr. T. G. D. Davies, of St. Andrew's-court, Holborn-hill, has been chosen, by ballot, Accoucheur to this Institution.

HOLLOWAY INFANT POOR-HOUSE.—Mr. W. B. Kesteven has been appointed Surgeon to this Establishment.

DEATHS.

RUMSEY.—February 28, at Clifton, James Rumsey, Esq. M.D., of Amersham, Bucks, aged 78.

STUART.—August 10, at Haslar Hospital, James Stuart, Staff-Surgeon, late of the Ceylon Rifle Regiment.

BEQUESTS.

THE LATE COUNTESS OF STRADBROKE bequeathed the following sums to the under-mentioned charities:—County Hospital, Ipswich, £100; Southwold Dispensary, £50; Beccles Dispensary, £50.

MR. LAYARD has been unanimously re-elected Lord Rector of the University of Aberdeen. An attempt was made to bring forward the Duke of Newcastle, who refused the nomination, and after his refusal the Lord Advocate was applied to, but he also declined a contest.

M. HANSTEEN, of Christiania, has addressed a letter to the Royal Society, stating that he has now ascertained, by calculation, the movement of the four magnetical polar regions:—the two northern ones have a motion from west to east, and the two southern ones from east to west.

MR. PANIZZI's appointment as Principal Librarian of the British Museum has received the Queen's assent. The post vacated by Mr. Panizzi, that of Head of the Department of Printed Books, will in all probability be filled by Mr. J. Winter Jones, the present Assistant-Librarian.

A CURIOUS EVENT occurred a few days ago in the University of Leipsic; Dr. Reclam, Professor of Legal Medicine, was lecturing on nicotine; and to show the deadly effects of the poison, he administered a large dose of it to a big dog. The animal, which was lying on its back, was immediately seized with convulsions, and, ejecting a considerable portion of the poison with great violence, it struck the Professor in the face, and some of it entered his mouth. The Doctor was immediately seized with all the symptoms of poisoning, but antidotes were promptly applied, and he was soon placed out of danger; but he suffered greatly, and had to be conveyed home.

DR. F. BOUDET has been elected a member of the Academy of Medicine. He had 48 votes. His competitors, MM. Gobley and Poggiale, who, out of the Academy, are considered superior to him, had, one 18 and the other 9 votes.

SEPARATE AUTHORITY OF THE MEDICAL DEPARTMENT OF THE ARMY IN THE CRIMEA.—The following appears among the General Orders, dated February 27:—"Notwithstanding an intimation, a short time ago, through Dr. Hall, the Commander of the Forces finds that the following circumstance has taken place in the Fourth Division:—The commanding officer of the 46th Regiment having sent to the Hospital for the stretchers, Mr. Webb, the Surgeon, refused to give them, although told it was the colonel's order, and persisted in that refusal. The Commander of the Forces ordered Mr. Webb to be put in arrest. By a letter from Dr. Hume, the senior staff-Surgeon of the 4th Division, Mr. Webb fancied himself justified in his refusal. These acts of Dr. Hume and Mr. Webb are censurable. The order of the commanding-officer is to be obeyed, the execution of it is to be facilitated, and such attempts at separate authority are out of the question. Having received an explanation from Dr. Hume, in which he expressed his regret on becoming aware of the tendency of his directions, the Commander of the Forces is satisfied to take no further steps in the matter. Mr. Webb will be released from arrest.

ALLEGED FORGERY OF A DIPLOMA OF THE COLLEGE OF SURGEONS.—On Monday last, at the petty sessions, Dudley, Henry Frederick Hodson, of Cradley-heath, who has been for some time practising as a Surgeon, appeared on a summons charging him with having unlawfully inserted his name in a certain diploma issued by and under the common seal of the Royal College of Surgeons of England, with intent to defraud. Mr. Edward Moore, of Halesowen, M.R.C.S. Eng., and Licentiate of the Apothecaries' Company, said that in the early part of October he went to the defendant's house and carefully examined a diploma shown to him. He observed that the name Henry Frederick Hodson had been written upon erasures in two places. The diploma bore date the 9th of July, 1855, and its number (a large one he thought) was 25,921. He told the defendant his impression was that the diploma was the late Mr. Higgs's, and that the name and date had been altered. Mr. Edmund Balfour, Secretary to the Royal College of Surgeons, produced the minute-book of the Court of Examiners of the College from 1845, and also a record of the diplomas issued from that period up to the present time. On the 9th of July, 1850, there was a record of a diploma being granted to Issachar Higgs, of Brierley Hill, Staffordshire. The number of that diploma was 2592. He had searched the records of the College, and did not find that a diploma had been issued to Henry Frederick Hodson. The highest number of a diploma issued up to the 7th of March, 1856, was 5032; there was not one so high as 25,921. The names of the examiners which appeared on the copy of the diploma in question did not correspond with the names of those present on the day on which it purported to have been issued, the 9th of July, 1855. The magistrates having deliberated a short time, Mr. Cartwright said it was their painful duty to commit the defendant for trial at the next Stafford assizes. Bail was accepted for the defendant's appearance, himself in £200, and two sureties in £100 each.

THE MURDERER OF MR. HOPE.—George Jones, convicted of the wilful murder of Mr. Hope, the Surgeon of the convict hulk at Portsmouth, will be executed at Winchester on the 22nd inst.

THE LEVEE.—At the Levee on Wednesday, the general circle was attended by Mr. Edwin Saunders, Surgeon-Dentist to the Queen. The following presentations took place: Dr. Agnis, by Lieut.-General Lautour; Assist.-Surg. C. K. Colston, by Colonel Visct. Hilton; Dr. J. Forrest, C.B., by Lord Panmure; Dr. J. L. Gaussen, by the Marquis of Donegal; Mr. H. Girvan, Surg., R.N., by Sir J. Liddell; Staff-Surgeon W. Graham, R.N., by Sir C. Wood; Dr. C. R. Kinnear, R.N., by Sir J. Liddell; Staff-Surg. Macgregor, by Director-General of Army Medical Department; Dr. Wm. Rae, on receiving the honour of C.B., by Sir C. Wood; Surgeon-Major Richardson, on appointment as Surgeon to the Duke of Cambridge, by the Duke of Cambridge; Dr. Sandwith, by Lord Panmure; Mr. Edwin Thomas Watkins, Surg. R.N., by Sir E. Lyons; Assist.-Surg. Charles J. White, on return from the Crimea, by the Earl of Orkney; Mr. David Wilson, M.R.C.S., by Lord Willoughby de Broke.

POISONING BY STRYCHNINE.—An inquest was held on Friday last, at Leeds, on the body of Harriet Dove, aged 28, the wife of Mr. William Dove, a gentleman of independent means, residing in Cardigan-place, Burley, near Leeds, whose death had been caused by strychnine. From the evidence adduced, it appeared that, on the 23rd of February, Mrs. Dove partook of some jelly, which had been taken to the house, and she complained that it was very bitter, and, on seeing her husband, she said, "William, did you put anything in that jelly?" and he answered. "Yes, I have put some of the medicine in it." She remarked that it was very unkind of him, and he subsequently stated to a neighbour named Mrs. Witham, that he had not put more than a teaspoonful in it. On Sunday, the 24th ult., she went to church, and was very well. On the following morning she breakfasted with her husband, and shortly afterwards she was seized with a very severe spasmodic attack, her body quivering as though under the influence of a galvanic shock, and accompanied with a difficulty of breathing. She complained of pain in her legs, and grasped the hands of her attendants very tightly. She refused to drink anything cold, and when cold water was applied to her lips, the "twitching" returned. In the mean time Mr. Dove went for Mr. Morley, and returned with that gentleman's assistant. At a later period of the day Mr. Morley called, and he then found Mrs. Dove much better, but he observed slight spasmodic twitchings. The symptoms were unusual, but he attributed them to nervous affection. After Monday Mr. Morley attended Mrs. Dove daily, and, becoming perplexed with the symptoms, which he thought ought to have given way to the medicines

he had ordered if they arose from hysteria, and Mr. Dove, expressing some fears as to the recovery of Mrs. Dove, he suggested a consultation with some other Medical man. Mrs. Dove having on that day suffered a violent attack, Mr. Dove said he would consider, and on the following morning he wrote to Mr. Morley, expressing confidence in him, and declining the consultation. On the evening of Friday, the 25th, while Mr. Dove was present with the deceased, she was again seized with a still more violent attack; her breathing was very bad. A messenger was despatched for Mr. Morley, and, as Mrs. Dove did not recover, Mr. Dove followed and requested Mr. Morley to take Dr. Hobson with him. As soon as Dr. Hobson was ready, they proceeded to Cardigan-place, but, on their arrival, they were informed that Mrs. Dove was dead. These gentlemen, who are well known as the eminent analytical Surgeons, commenced their labours immediately, forty-two hours after death, and continued them on the fourth, fifth, and sixth days, when they were able to come to a decisive conclusion as to the cause of death. On Thursday they presented their report, which stated, that in an analysis of the stomach and its contents they discovered distinctly the presence of strychnine; they also found faint and doubtful traces of it in the intestines. In reply to the Coroner, both gentlemen distinctly stated, that the only cause of death was strychnine. The inquest stands adjourned till Monday.

Health of the Army and its Medical Staff.—The last report of the Inspector-General of Hospitals, in the Crimea, is a most remarkable document. During the week ending February 23, not a single death from disease occurred in the whole army, and only two deaths from accidents. In the course of the three weeks which ended on the 23rd there had been only fourteen deaths in the army, and the ratio of the sick to the healthy was only four-and-a-half in the hundred. The Highland Division (4860 men) had only one death in five weeks; the Third Division (6450) not a single death in twenty-eight days; the Light Division (6460) no death in a fortnight. These facts are most honourable to the regimental Surgeons—whose skill and indefatigable assiduity will not, it is to be hoped, be forgotten or allowed to go unrewarded.—*Daily News.*

The East India Service.—The following is a list of the Assistant-Surgeons who have passed at the last examination for the East India Company's Service:—Edmund Darby, M.D., M.R.C.S., England; Frank Powell, M.B., L., M.R.C.S., England; E. L. Dixon, M.R.C.S., England; John Ince, M.D., St. A., M.R.C.S., England; Frederick J. Pettingal, M.R.C.S., England; John Jones, M.R.C.S., England; James Brown, B.A., M.R.C.S., Ireland; Robert S. Batson, M.R.C.S., Ireland; W. H. James, F.R.C.S., Ireland; C. Joynt, M.D., L.N.I., M.R.C.S., England; W. E. Cates, M.R.C.S., England; James J. Fraser, M.R.C.S., England; Thomas P. Wright, M.R.C.S., England; C. N. Chavasse, M.R.C.S., England; Alexander Dallas, M.R.C.S., England; Charles Wilkelly, M.B., T.C.D., F.R.C.S., Ireland; Thomas H. Woodward, M.R.C.S., England; George Bidee, M.B., M.R.C.S., Edinburgh; John G. Reed, M.R.C.S., England; M. J. S. Bush, M.R.C.S., England; John Henderson, M.D., Edinburgh; Andrew Bloomfield, M.R.C.S., England; J. H. M'G. Ross, M.D., M.R.C.S., Edinburgh; John M'G. Donnelly, M.D., Cork; John Cruickshank, M.D., M.R.C.S,, Edinburgh; Charles T. Eves, M.R.C.S., England; Henry C. Kingstone, M.B., T.C.D., M.R.C.S., Ireland; James S. Ridings, M.R.C.S., England; James J. Heffernan, M.R.C.S., Ireland; Newton Brigstocke, M.R.C.S., England; Robert M'Connell, M.R.C.S., Ireland; D. W. Trimnell, M.R.C.S., England; Charles K. Colston, M.R.C.S., England; Charles F. Ogilvie, M.D., M.R.C.S., Edinburgh; Edmund P. Burrows, M.R.C.S., England; William H. Colville, M.R.C.S., England; Charles Johnson, M.R.C.S., England.—*Smith and Elder's Overland Mail.*

Cholera.—A death from Cholera is reported; it occurred after an illness of very short duration. The particulars are as follow:—At 11, Half-moon-street, Bishopsgate, on March 7, a journeyman blacksmith, aged 48 years, "cholera (10 hours)." The house (adds the Registrar) is drained and ventilated, and there is no apparent circumstance to account for the disease.

The Medical Reform Bill and the Royal College of Physicians.—A Petition to the House of Commons in favour of the general principles of Mr. Headlam's "Medical Profession Bill," will be proposed to the College, at the Comitia Majora Ordination, which takes place on Monday next, the 17th instant.

Testimonial to Dr. Edward Lloyd.—On Thursday evening, March 6, a meeting of the members of the Pupils' Physical Society of Guy's Hospital was held at the London Tavern for the purpose of presenting a testimonial to Dr. Edward Lloyd, in token of their high estimation of the valuable services rendered by him to the Society during the twelve years in which he held the office of Honorary Secretary. The chair was taken by Dr. Odling, Professor of Practical Chemistry at Guy's Hospital, and among the gentlemen present were Mr. Edward Cock, Mr. Cooper Forster, and Dr. Wilks. An address having been read by the Secretary, the Chairman presented the testimonial, which consisted of an elegant silver candelabrum and flower-stand. He observed, that it afforded him much gratification to have this opportunity of expressing his appreciation of the services rendered by Dr. Lloyd to the Society. Those who had been connected with it during the period of his secretaryship would never fail to remember with gratitude the able and energetic manner in which he had performed the duties of the office. In the name of the present and past members of the Society, he presented Dr. Lloyd with this mark of their esteem, and most cordially wished him a long career of prosperity and happiness. Mr. Cock then addressed a few words to Dr. Lloyd, expressing the pleasure it gave him to be present on the occasion, and congratulating him on carrying with him, on his retirement from the Hospital, the esteem and good wishes of the whole body of Students.—Dr. Lloyd, in returning thanks, said that he was deeply grateful for this proof of esteem from his old pupils and friends. He should always regard this meeting and the circumstance that had given rise to it among the happiest events of his life, and begged to assure his old associates of Guy's, that, could he in any way and at any time serve them, he should be ever at their command.

Mortality Notabilia.—The total number of deaths registered in London, which had been 1029 in the previous week, rose to 1082 in the week that ended last Saturday. The rate of mortality now prevailing is considerably less than has been generally experienced in the beginning of March; for the rate (taking the average) which prevailed at this period in the last ten years would have produced in the present increased population 1252 deaths.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, March 8, 1856.*

Causes of Death.	In the Week ending Saturday, March 8, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	38·3						40·3
All Causes	1082	499	166	178	203	36	1138·2
Specified Causes	1080	498	166	178	202	36	1129·3
Diseases:—							
1. Zymotic Class	205	148	24	19	13	1	218·1
2. Dropsy, Cancer, and others of uncertain seat	45	6	12	14	10	3	51·2
3. Tubercular Class	192	75	70	38	8	1	189·5
4. Of Brain, Nerves, etc.	125	49	9	28	38	1	135·9
5. Of Heart, etc.	52	7	8	16	19	2	42·7
6. Of Respiratory Organs	191	90	13	33	50	5	249·8
7. Of Digestive Organs	56	28	5	5	17	1	60·7
8. Of Kidneys, etc.	16	..	3	6	6	1	13·8
9. Of Uterus; viz. — Puerperal Disease, etc.	15	1	8	4	2	..	8·5
10. Of Joints, Bones; viz.— Rheumatism, etc.	13	4	3	4	2	..	7·1
11. Of Skin, etc.	1	..	..	1	..	..	2·0
12. Malformations	7	7	..	..	..	..	4·6
13. Debility from Premature Birth, etc.	31	30	..	1	..	..	27·9
14. Atrophy	33	22	..	2	8	1	25·7
15. Age	37	..	..	..	17	20	49·2
16. Sudden	18	10	2	2	4	..	11·6
17. Violence, Privation, etc.	43	21	9	5	8	..	31·0
Causes not specified	2	1	..	..	1	..	8·9

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	2	7	7	8	5
North	490,396	9	7	6	11	..	12
Central ..	393,256	..	2	5	6	2	10
East.....	485,522	3	5	4	14	2	15
South	616,635	2	1	2	16	1	10
Total..	2,362,236	15	17	24	54	13	52

DEATHS IN PUBLIC INSTITUTIONS for the Week ending March 8 :—

	Males.	Females.	Total.
Workhouses	62	63	125
Prisons	..	..	..
Military and Naval Asylums ..	2	..	2
General Hospitals	32	20	52
Hospitals for Special Diseases ..	5	6	11
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	8	..	8
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	6	3	9

BOOKS RECEIVED.

The Education of the Imbecile.

A Review of Professor Bennett's published Introductory Lecture. By John McGilchrist, M.D. Second Edition. Edinburgh: Bell and Bradfute. 1856.

TO CORRESPONDENTS.

The letter of our Paris Correspondent arrived too late for insertion this week.

We are compelled, from press of matter, to omit the excellent address delivered by the President of the Medical and Chirurgical Society at the last anniversary meeting.

The Administrative Reform Association have issued an address to the Administrative Reformers in Great Britain and Ireland, showing the benefits already obtained by the Association, and pointing out the future advantages likely to ensue by a perseverance in the course hitherto adopted. The gross abuses of Government and Parliamentary patronage are forcibly denounced in the Address, and the recent institution of Examinations, as tests of admissibility to public offices, is noticed with commendation.

E. M.—In case of any legislative enactment being passed in relation to the Medical Profession, existing rights would be respected. We cannot say, however, that Physicians would be allowed to register at an earlier age than that specified in the Bill.

The Royal College of Surgeons of Edinburgh.—We have received from the Secretary of this College, a report upon Mr. Headlam's Bill, to alter and amend the laws regulating the Medical Profession. The College proposes such sweeping alterations in the Bill, as entirely to alter its character, and the conclusion drawn by the College is, that its own privileges and emoluments ought to remain intact. While agreeing with the College in many of its objections to the Bill, we must remark that if each corporation should oppose every public measure on selfish grounds there is no hope of any legislative enactment whatever for our Profession.

If an extraordinary Member of the Royal Medical Society of Edinburgh will point out concisely the errors which have been committed in the communication of our Correspondent, we will publish the correction; but we cannot undertake to compose a letter ourselves upon the subject, from the extracts furnished to us.

Dr. Rigby's paper has been received, and will be published immediately.

Mr. Wilkinson's letter has been hitherto delayed, only in consequence of the crowded state of our columns.

Dr. Symond's request shall receive attention.

A Constant Reader, writing from a large town in Scotland, complains that "a great defect in the New Medical Bill is, that it does not prevent Chemists and Druggists from bleeding, extracting teeth, and giving advice over the counter. In most Scotch towns," writes our correspondent, "the Druggists make as much as some Practitioners, and undertake most of the minor operations of Surgery. In this town, of about seventy-thousand persons, most of the Druggists' shops are kept by persons ignorant even of drugs, and there are no less than *five female Druggists* in practice." With regard to our correspondent's question as to the Registration of his son under the new Bill, we may remark that the Bill has not yet become law, but in case of the passing of any measure affecting the Profession, existing rights will always be recognized. We, however, entirely agree with the framers of the Bill, in the proposed postponement of the dignity of Physician to a more mature age than twenty-one.

Inquirer.—The Poor-Law Board may refuse to sanction the appointment of a Poor-Law Medical Officer who does not possess the double qualification, unless it can be proved that there is no candidate who *does* possess such qualification. 2. In case of two candidates applying for a Poor-Law appointment, one of whom possesses the double qualification and the other does not, the Guardians are bound to elect him who is fully qualified; and if they fail to do so, the appointment may be annulled by the Poor-Law Board.

An Original Subscriber.—The act is clearly illegal, but a prosecution would fail, under the circumstances, from want of bill or receipt.

COMMUNICATIONS have been received from—

Mr. RICHARD GRIFFIN; Dr. HYDE SALTER; Mr. CHARLES PARDEY; THE ROYAL JENNERIAN AND LONDON VACCINE INSTITUTION; Dr. R. D. THOMSON; Mr. W. B. KESTEVEN; A CONSTANT READER; Dr. W. COATES, Malta; Mr. DAVID MORRIS, Colchester; Mr. HENRY PENFOLD; Mr. RICHARD BARWELL; Mr. JONATHAN HUTCHINSON; Mr. BIRD; AN OLD PRACTITIONER; Dr. PETER EADE; Mr. HENRY SMITH; Mr. HAYNES WALTON; E. M.; Mr. GEORGE A. HUTTON, Graham's Town; THE PRESTON UNION; THE GENERAL BOARD OF HEALTH; THE ADMINISTRATIVE REFORM ASSOCIATION; Mr. JOHN SCOTT; Dr. C. T. SMITH, Madras Army; Mr. W. L. BRITTON; Dr. W. WOOD; INQUIRER; Mr. T. G. D. DAVIES; AN EXTRAORDINARY MEMBER OF THE ROYAL MEDICAL SOCIETY OF EDINBURGH; Mr. JOHN INCE; Dr. B. W. RICHARDSON; C. H.; A GENERAL PRACTITIONER; ALPHA; E. C. B. S.; CHIR.; THE MEDICAL OFFICERS OF THE GODSTONE UNION; Mr. BULTEEL; Mr. W. BURTON; AN ORIGINAL SUBSCRIBER; Mr. H. W. LEY; W. B.; Mr. GEORGE MOIR; Dr. R. M'LEAN; Mr. W. THORNTON, Crimea; Dr. BAINES; Mr. DOLMAN, Derby; Mr. CROFTS, the Dreadnought; Mr. ROSS, the London Hospital; Mr. HARDWICK, Leeds; Mr. JOHN WOOD, King's College; Dr. OGLE; Mr. J. P. TEALE, Leeds; Mr. PARKINSON, King's College Hospital; Mr. DYER, Guy's; Mr. SKINNER, Guy's; Mr. T. CHAPLIN; Mr. W. B. KESTEVEN.

APPOINTMENTS FOR THE WEEK.

MARCH.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
15. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.: Dr. F. Headland "On Poisoning by Aconite Root." STATISTICAL SOCIETY. *Anniversary*, 3 p.m.
17. MONDAY.....		STATISTICAL SOCIETY, 8 p.m. CHEMICAL SOCIETY, 8 p.m.
18. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. Council meets at 7. LINNEAN SOCIETY, 8 p.m.
19. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	GEOLOGICAL SOCIETY, 8 p.m.
20. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	HARVEIAN SOCIETY, 8 p.m.: Mr. Borham "On the Pathology of Apoplexy, more especially in connexion with Pregnancy."
21. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	

ORIGINAL LECTURES.

LECTURES
ON
THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.

Licentiate of the Royal College of Physicians; Professor of Physiology and General and Morbid Anatomy in King's College, London.

Lecture I.

Gentlemen,—In describing to you the minute structure of the liver, I shall go somewhat more into detail than is necessary in discussing the anatomy of organs generally. I have very lately spent much time in trying to make out the arrangement of the secreting structures in this large and important gland, and I am desirous of communicating to you some of the most important results of these inquiries. A teacher can never feel a greater pleasure than that of communicating for the first time, in his class-room, to his pupils, the results of his own work; and it is one which he cannot hope to enjoy many times. In doing so, he naturally feels anxious to enlist their sympathies in the same cause; he looks forward with pleasure to the assistance he hopes to derive from them in following out further inquiries, and to the time when they will for themselves take up the investigation at the point where he has been compelled reluctantly to leave it.

Forgive me, then, if I seem to be tedious, and for once let me indulge in some anatomical details in which many of you will feel interested.

For much of what we know of the anatomy of the liver, we are indebted to one of the greatest living anatomists, Mr. Kiernan, and almost every one is well acquainted with his most valuable researches upon the structure of this gland. These investigations were made nearly a quarter of a century ago, at a time when the compound microscope was a very imperfect instrument, and principally with the aid of a lens alone. The liver cells, the great agents in the secretion of bile, were hardly known, and the exact arrangement of the capillary vessels was not satisfactorily demonstrated until many years after. Yet very much of that which Mr. Kiernan did, and the correctness of the conclusions which he arrived at, have been fully confirmed by later investigators. I hope to have the pleasure of demonstrating to you the truth of a view which he held with reference to the arrangement of the ducts of the liver, upon which there has since been much controversy. Indeed, the latest researches appear to militate most strongly against the inferences of Mr. Kiernan on this point; but I think I shall be able to convince you that he was, in the main, right, and that the arrangement which is demonstrated in many of my preparations was foreshadowed by him at a time when the means of investigation were very imperfect in comparison to those which we may now employ.

The liver in health measures about 12 inches from side to side, and 6 or 7 in its antero-posterior diameter. Its bulk corresponds to nearly 100 cubic inches, and its weight varies from 3 to 4 pounds, according to the quantity of blood which it may contain. Its specific gravity in health is about 1·05.

The following is an analysis of a liver presumed to be healthy. The organ was taken from the body of a man 31 years of age, who was killed by falling from a second-floor window while in the enjoyment of perfect health.

		Per 100 of Solid Matter.
Water	68·58	
Solid matter	31·42	
Fatty matter	3·82	12·16
Albumen	4·67	14·86
Extractive matter	5·40	17·18
Alkaline salts	1·17	3·72
Vessels, etc., insoluble in water	16·03	51·01
Earthy salts	·33	1·05
	100·00	

In disease, the proportion of these constituents is liable to very great variation. In fatty degeneration, an enormous amount of fatty matter may accumulate in the organ. In one remarkable case, I obtained from a liver 75·07 per cent. of solid matter, and of this 65·19 consisted of fatty matter(a). In scrofulous degeneration of the liver, the albuminous materials and the water are increased, while the fatty matter is diminished in quantity.

If you look at the surface of a liver, you perceive it to be mapped out, as it were, into a number of small spaces, about the size of a small hemp-seed, but differing slightly from each other in dimensions and form. The appearance of these markings is different in the livers of different animals. In the pig each little space is completely circumscribed, but, in the human subject, they appear rather to fit into, or in a manner to dovetail with each other. In other mammalian animals the markings are more or less distinct than in the human subject, but in no one are they circumscribed in the perfect manner in which they are in the pig (b). If you make a section in various directions in different parts of the organ, you see a similar mapping out, although, perhaps, not quite so distinctly as upon the surface. The structure of all these little component masses of the liver is the same. These little masses, whether they be perfectly circumscribed, as in the pig, or less completely so as is the case in other animals, are termed "lobules." A lobule, then, contains all the essential elements for the secretion of bile, and for effecting those changes in the blood which this fluid is known to undergo in its passage through the capillary vessels of the lobule.

Upon the under-surface of the liver is a large groove, the *longitudinal fissure*, from which passes off transversely upon the surface of the right lobe another depression, the *transverse fissure*. At this point the portal vein, the hepatic artery, and nerve-fibres, enter the substance of the organ; and the hepatic duct and numerous lymphatic vessels emerge from it. These structures all lie in close proximity to each other, and are bound together by a certain quantity of areolar tissue.

From the transverse fissure may be traced numerous tubular passages throughout the entire substance of the liver, those most distant being of course the smallest. They all contain branches of the vessels above enumerated, and in this way no portion of hepatic tissue is at a greater distance from one of these canals than the one-thirtieth of an inch. These tubular passages have been named *portal canals*, by Mr. Kiernan. Such is the beautiful arrangement by which the vessels are brought into close relation with every portion of this firm and compact gland; and thus an even distribution of the blood to each individual part is insured.

From the oblique notch on the posterior thick border can be traced another series of channels, which contain branches of the hepatic vein, and every part of the liver is brought into an equally close relation with one of these canals, which have been termed *hepatic venous canals* by Mr. Kiernan.

Lobules.—A lobule contains all the elements of the liver. The entire organ is a collection of lobules. Every lobule may be regarded as an elementary liver. The small liver of the mouse differs from the large liver of the elephant in a certain degree with respect to the size of the lobules, but enormously with regard to their number.

Now, the lobule is most perfectly seen in the pig's liver, and also in that of the polar bear, according to Müller; and these livers, in their anatomical arrangement, differ vastly from those of other animals with which I am acquainted, as regards the separation of the lobules from each other. With care, you may separate a portion of the liver of the pig into a number of small roundish masses, like very small peas. Each is invested with a firm, fibrous membrane of its own; and, if you press it strongly, it bursts, and its contents may thus be squeezed out. Upon the surface of this lobule ramify small twigs of the portal vein, hepatic artery, and hepatic duct; many branches from these perforate the capsule at various points, and are distributed *to the interior of the lobule.* The capsule of the lobule is composed of a variety of fibrous tissue. The fibres are exceedingly delicate, and so arranged as to surround small apertures, through which branches of the vessels and duct pass to the interior. The capsules of adjacent lobules are connected together by the branches of these vessels, and also by a small quantity of a fibrous tissue.

(a) Diseases of the Liver. Dr. Budd. Second Edition.
(b) Except in the Polar bear, according to Müller.

At one particular spot, and here only, a small twig of the hepatic vein perforates the capsule, and breaks up into capillaries in the interior, so that if the hepatic vein be injected, and the lobules separated from each other to a great extent, but left attached to the small branches of the hepatic vein, they would seem to be arranged upon the terminal branches of the vein. In attempting partially or completely to isolate the lobules from each other, the branches of vessels distributed upon their surface are, of course, much torn, since, in all instances, these vessels (portal vein, hepatic artery, and hepatic duct) are interlobular, that is, run between the lobules, and give off branches to those among which they pass, as they pursue a somewhat tortuous and irregular course. Such is the anatomical arrangement and connexion with each other of the small, circumscribed portions of hepatic tissue of the liver of the pig and polar bear. The entire organ is built up of a number of elementary livers connected with each other only by the vessels for their supply, and by a little areolar tissue in which these vessels ramify, which serves to give a certain compactness to the entire organ as a whole, while at the same time it allows great alteration in volume, and a certain mobility between each of its elementary parts.

In other animals, so far as I have been able to ascertain, this arrangement of the organ into lobules which can be separated from each other, does not exist. With the above exceptions, it is impossible to isolate the elementary parts of the organ from each other without leaving a very rough and jagged surface. When this isolation is attempted the surface of the little masses seems to be rough and uneven; their form is irregular, they have evidently been torn. The true secreting portion of the gland is injured in the attempt. In fact, the secreting tissue and capillary plexus of one imperfectly isolated portion of hepatic substance communicates at certain points with the corresponding elements of its neighbours. The general arrangement of the vessels, however, is essentially the same in all cases. When the lobules are provided with a separate capsule the portal vessels ramify upon its surface; but where they are not thus isolated from each other, they penetrate into the substance of the gland at regular distances, lying in channels or interlobular fissures. At points between the fissures the tissue of one of the imperfect lobules communicates with that of its neighbours.

The distinct and elementary lobules in the pig's liver may be looked upon as exceptional, and the liver of this animal appears to bear the same anatomical relation to the liver of most other animals as the much-divided kidney of the porpoise bears to the compact and solid character which this gland usually presents among mammalian animals.

This arrangement in the pig's liver would permit a certain amount of separation and movement upon each other of the different lobules, while it would also have the effect of preventing undue engorgement and distension of each lobule,—a provision which, from the habits of the pig, seems needed more than in the case of any other animal. A pig's liver will easily contain a quantity of water equal to its own weight, which may be injected from the portal vein; and its lateral and antero-posterior dimensions will be increased as much as two inches each way; while, although, by using great force, almost as much fluid may be forced into the human liver, it only increases from half to three-quarters of an inch in the same dimensions.

In all vertebrate animals, the arrangement is such, that the blood after it has left the smallest branches of the portal vein, is made to traverse an extensive system of capillary vessels, from which it is again collected by the small radicles of the hepatic vein. The vessels ramifying in the portal canals seem to alternate with branches of the hepatic vein, as is shown in this diagram of the thin edge of a rabbit's liver, or in this one which represents the arrangement in the human liver.

In all cases the blood, enriched by the absorption of nutrient material from the intestines, is brought by the numerous small branches of the portal vein to the circumference of the lobules, and is then made to traverse the network of capillaries which converges towards the central branch of the hepatic vein. The blood brought by the artery pursues a course in the same direction, but the bile flows in an opposite one, viz., towards the circumference of the lobule. The bile, and the blood from which this bile is secreted, flow in opposite directions. The distension of the capillaries with blood would tend to force the bile towards the ducts; but if the bile accumulated to an unusual extent in the smaller ducts, or were so viscid that it would not flow readily through them, or if the bile were prevented from escaping freely from the common duct, the free circulation of the blood through the capillaries of the liver would be interfered with.

(To be Continued.)

PRACTICAL OBSERVATIONS
ON THE PROPHYLACTIC AND CURATIVE TREATMENT OF CONTINUED FEVERS.

By ROBERT HUNTER SEMPLE, M.D.
Member of the Royal College of Physicians; Physician to the Northern Dispensary.

(Continued from page 230.)

The diet in this disease must be regulated upon a somewhat different principle to that laid down in the case of typhus. Bearing in mind that the depression is not so rapid as in the latter disease, and that the mucous surface of the intestines is inflamed or ulcerated in typhoid fever, very great caution is necessary in the administration of articles of diet. For the first few days, it will be necessary to restrict the patient to toast-and-water and weak beef-tea, and the use of wine is not so early demanded as in typhus. As the disease advances, however, a cautious use of wine will be demanded, and if the diarrhœa should be copious and exhausting, a free administration of port wine, or even brandy, will be required, and strong beef-tea, ground rice, and strong jelly, may be administered with advantage. Even after the worst symptoms have subsided, it will be necessary to use great caution in the choice and administration of aliment; for the glands of the small intestine and the mucous surface generally are still in an irritable and inflamed condition, and an incautious use of food may light up the disease afresh, and indefinitely retard the recovery of the patient. Alternate inconvenience from constipation and diarrhœa may also be feared, and these symptoms will require appropriate treatment either by small doses of castor oil, or a combination of mercurials with Dover's powder or with catechu, as circumstances may suggest; and it must never be forgotten that a danger of great magnitude may always be dreaded as a consequence of typhoid fever, viz.: perforation of the intestine from an opening of an ulcer through the intestinal coats. Hence, then, the utmost caution should be exercised in the convalescence from typhoid fever, with a view to heal the inflamed and ulcerated surface of the intestines, before allowing a liberal supply of food.

The time allotted for reading this paper will not permit me to notice in detail any of the numerous complications which often attend or follow Typhus and Typhoid fevers. Sometimes the brain becomes the seat of specific inflammation, and meningitis, marked by effusion of lymph from the arachnoid membrane at the base of the organ, carries the patient off; much more commonly, inflammation of the chest, whether as bronchitis, pneumonia, or pleurisy, adds to the danger of the case; and peritonitis is not unfrequently observed. In all these cases, the treatment must be varied according to the nature of the affection, always with the caution that these diseases, dangerous as they are, are here only the accompaniments of a disease quite as dangerous, and any undue depletion employed to extinguish specific inflammation may, by lowering the patient, make him an easier prey to the ravages of the original malady. In meningitis, therefore, we may cautiously employ local depletion: the head must be shaved, blisters should be applied over the shaven surface, on the temples, or on the nape of the neck, and calomel may be given in small and repeated doses. In bronchitis, pneumonia, and pleurisy, which may attack the patient singly or together, the best remedy is the antimonio-tartrate of potash given in small doses, as the eighth of a grain, with a few grains of nitrate of potash in a saline mixture; and in pneumonia and pleurisy, small doses of calomel and opium may be administered, and blisters applied over the chest, and repeated at intervals. In peritonitis, calomel and opium may be given with advantage, and turpentine may be applied as an epithem warm over the whole abdomen, or given internally in doses of ten to twenty minims.

With regard to the prophylactic treatment of Continued Fevers, my observations must be brief, not because materials

are deficient, but because this paper has already run to a sufficient length. Typhus and Typhoid fevers are both epidemic, and both arise from what may justly be called preventible causes. Typhus fever, however, is more distinctly propagated by contagion; typhoid fever arises from local and endemic causes. This distinction has been very well marked in some cases which have fallen under my own observation very lately. At the Islington Workhouse, which is an old and inconvenient building, with fetid drains, typhus and typhoid fevers both prevailed in the years 1853 and 1854. The Master of the establishment, who was not much in the sick wards, and then only for a minute or two at a time, but was subject to the influence of the drains, suffered from a well-marked and long-continued attack of typhoid fever; a young gentleman employed as dispenser of medicines, who never entered the sick wards at all, but whose duties placed him over a sink communicating with a fetid drain, also suffered from a most severe attack of typhoid fever; but my nephew, who was often in the sick wards, and who took down notes of some of the typhus cases, was seized with typhus, and covered with the characteristic mulberry rash. The experience of the London Fever Hospital testifies abundantly to the same fact; the building being well ventilated and well drained, and in all respects admirable in its sanitary condition, does not give rise to typhoid fever, but the typhus atmosphere emanating from and surrounding the patients, infects with typhus the nurses, the Medical attendants, and patients suffering from slighter affections. I do not assert that in this respect there is a positive line of demarcation between typhus and typhoid fever, but I think that the distinction is generally a just one; and, even while drawing this distinction, I do not deny, but, on the contrary, am very willing to admit, or even to argue, that the original causes of typhus and typhoid fever may be the same, namely, filth, bad living, overcrowding, want of fresh air, foul drains, intemperance, and all other similar causes, which lower the vital energies, contaminate the atmosphere, and poison the blood. Again, alluding to the case of the Islington Workhouse, where I watched the rise and progress of the epidemic with great care, I came to the conclusion that the existence and continuance of typhoid and typhus in that establishment were mainly due to the absence of sanitary precautions. The site is a very healthy one, being upon an elevated position; and, during the prosperous years of 1851 and 1852, it was far from being overcrowded, and, indeed, it was by no means full; and, in consequence, typhus and typhoid fevers were almost unknown; the only cases being those which were brought in from without, and which were sent away as speedily as possible to the Fever Hospital. But as the place became overcrowded, and no means were adopted to relieve this condition, typhus and typhoid appeared with much greater severity than had ever before been observed in the establishment. It is true, that typhus cases were brought in, as usual from without, and it is very probable that these cases originated fresh attacks of disease, its propagation being favoured by the overcrowding, the bad drains, the foul smells, and other causes to which I have alluded, and to which may be added the fact, that in the sick wards were persons labouring under chronic ulcers, sloughing of the nates, cancerous sores, syphilitic affections, and other diseases attended with putrid discharges. I found in several of these unfortunate persons a condition not presenting either the typhus or the typhoid rash in a characteristic form, and, therefore, I excluded them from the category of those diseases, but there was a condition to which I applied the term *typhous*, marked by a brown or black tongue, extreme depression, and speedy death. It is true, that most of these persons were labouring under chronic maladies, which would have cut them off sooner or later, but their death was certainly accelerated by the unfavourable circumstances in which they were placed.

A false security is often induced by the anomalies which are observed in the development and propagation of typhus and typhoid fevers. Localities where both these diseases might be expected to prevail, remain for a long time free from the visitation, and it then becomes difficult to persuade local authorities of the necessity for any precautions; but sooner or later the time arrives when the disease breaks out, and preventive measures are too late. The same capricious character is observed, though to a far greater degree, in the case of Asiatic cholera, which in the year 1849 raged furiously in several localities which it spared in 1854; and on the other hand, it seized upon certain spots in 1854 which it spared in 1849. That the elements of disease are not at all periods in active operation, even under the same circumstances, will perhaps be generally admitted, at least as far as our own Metropolis is concerned; but it would appear as if, at certain periods, some poisonous principle were generated in the atmosphere, and over such spots and such persons as happen to be in a sound sanitary condition, it passes away harmless, or at least without effecting a great amount of mischief; while in other cases, placed in opposite conditions, the zymotic plague finds an appropriate *nidus* for its indefinite propagation.

It cannot be too emphatically declared, that in the case of typhoid and typhus fever, prevention is better than cure; for when the disease is once fairly established, the treatment is difficult, the duration of the case uncertain, and the issue doubtful; while, by judicious sanitary precautions, these fevers may be diminished in numbers and mitigated in severity, if not extirpated altogether. It is the proud prerogative of our Profession, not only to mitigate the evils of fever by our attentions at the bedside of the patients, but to give our best energies to devise the means for preventing this disease altogether. It is very much to be regretted that those who have devoted their lives to the latter good work, have reaped but a very scanty reward, and their labours have been too often misinterpreted. It remains to be seen whether the appointment of Medical Officers of Health to the Metropolitan Districts, will place preventive Medicine in its true light; and if these functionaries should succeed in diffusing more just notions than those which now prevail upon the necessity of *preventing* disease, as well as of curing it, they will deserve well of their generation and of mankind.

I had intended to enter at some length upon the consideration of prophylaxis in fever, but the time will not permit me to do so, and indeed the measures to be adopted are so nearly like those which ought to be employed in cholera, or indeed in any other zymotic disease, that it is the less necessary. I might also have added something concerning the efficiency of Fever Hospitals, and the best method of managing those Institutions. I may state, however, that I do not regard the establishment of Fever Hospitals so much a positive good, as a necessary evil, for they undoubtedly tend, in a certain degree, to propagate the disease which they are intended to check. I am inclined to think that the best hygienic treatment of fever, is to isolate the cases by placing them apart from one another, and apart from the abodes of other sick persons. I am aware that in certain cases this cannot be accomplished, and then the Fever Hospital is the less of two evils; the alternative being to bring the cases together into an Institution, where they are separated from their fellow-creatures, and where they can do only a limited amount of mischief by contagion, or to leave them in their miserable crowded abodes, or in the ordinary Hospitals, schools, and workhouses, where the disease is almost sure to be propagated to an illimitable extent.

CASES ILLUSTRATING THE ETIOLOGY AND TREATMENT OF EPILEPSY.

By HENRY HUNT, M.D.

(Continued from page 208.)

Case 7.—Miss —, aged 13, was brought to me from the country in the spring of 1855. She had been subject to epileptic fits for two years; they commenced without any apparent cause, and, during the first year, recurred about once in two months, sometimes the interval between them was prolonged to three, but for the last year they have been more frequent, occurring every three or four weeks. When I first saw her, her complexion was dingy and sallow, and the conjunctiva tinged with bile; the tongue foul; the pulse slow and weak; the extremities cold and purple; the abdomen large and hard; the bowels regular, the discharges very dark and offensive; the urine scanty, turbid, and containing "an unusually large quantity of the phosphates, and above the normal quantity of chloride of sodium, the specific gravity 1·026, albumen and grape sugar about the usual average,

urea below the average." This child presented the timidity peculiar to epileptics, and especially dreaded being left alone. I prescribed moderate doses of the pilula hydrargyri and extract. colocynth. comp. to be taken every other night, and an aperient draught, acidulated with nitric acid, occasionally in the morning, and the acids both internally and as a bath. The pills operated freely, and brought away much dark and offensive matter, which continued of the same abnormal quality all the time this lady remained in London; but before she left there was an evident improvement in the clearness of the complexion, and less dulness in the expression of her countenance. She had a fit in the railway, on her journey into the country. Her Medical attendant in the country wrote to me at the end of June, "that there had not been any fit since her return from London, but several attacks of giddiness; and that the excretions continued of an unhealthy character, being dark, and very offensive, and passed in large quantities. The pills had been steadily continued, and she had been regularly sponged with the acid. The complexion was somewhat clearer, the tongue clean, the appetite good, and the hands and feet generally cold." I then advised that the bath should be substituted for the sponging, and the pills continued. In July, menstruation first occurred, after which she improved very much for a few weeks; but she passed over seven weeks before the catamenia again appeared. The complexion then became again dingy, the intellect more dull, and the fearfulness increased until August, when she had another fit. I saw her in the beginning of October, and found her very much improved. The morbid fearfulness had entirely subsided, as well as all those nervous sensations, which had hitherto been so distressing; the urine was clear, strongly acid, specific gravity 1·015, and no trace of the phosphates, and in every respect normal in quality. In short, my patient appeared well, and had lost all apprehensions of a return of the fits from the complete removal of those sensations which had always preceded them. But as sufficient time had not elapsed since the last attack to warrant a belief in the permanency of the cure, I advised a continuance of the same treatment, and that it should be discontinued by degrees, taking care that the bath should be used regularly for ten days before the menstrual period for several successive months.

Whatever share of the cure was due to the appearance of the catamenia, the decided improvement that had taken place before the appearance of that discharge, showed the efficacy of the treatment, and I think well-grounded hopes may be entertained that a complete cure will be ultimately effected by it. There was one remarkable difference between this case and the others; in them, the discharges from the bowels were paler than natural, showing an almost entire absence of bile; while in this, they were dark, indeed nearly black, and there was also an evident fulness of the abdomen, especially in the region of the liver, both of which I attributed to congestion of that organ and of the general portal system, which induced me to prescribe the mercurial and aperient draught in addition to the colocynth and mineral acids. I have lately ascertained that this lady remains perfectly well.

Although the following cannot be considered a case of true epilepsy, but an example of the hysterical form of that disease; yet it offers so many points of interest connected with the subject of these papers, particularly in regard to the injurious influence of alkalies and beneficial effect of acids on this class of nervous diseases, that I am tempted to describe it.

Case 8.—Mrs. —, aged 30, a stout person, married, but has never been pregnant, consulted me during the latter part of my attendance on Case 2. This lady has been liable to sudden attacks of insensibility for several years; they are generally preceded by dimness of sight, confusion of ideas, and other symptoms of a disordered state of the nervous system. These symptoms seldom last more than a few seconds before she becomes unconscious, in which state she sometimes continues for twenty minutes. Although strong and robust in appearance, she is easily fatigued. The catamenia are regular, but the discharge is of a very dark colour; the bowels are constipated; the urine is pale, the specific gravity 1·006; it is slightly alkaline, and contains a considerable quantity of the phosphates and little urea. She complains of a distressing irritation in the uterus, to cure which, lunar caustic and other local remedies have been applied for several successive months without affording relief. The appetite and digestion are good, but she has an intense craving for sour fruit and acids of every kind, which have been forbidden for the last two years, and during that time her diet has been restricted to animal food, bread, and porter, to which she has strictly adhered.

Under these circumstances, I considered this case afforded an excellent opportunity of testing the virtue of the acid treatment, and of ascertaining whether the cure of Case 2 was really owing to that treatment, or was an accidental occurrence. The acid bath, and the nitro-muriatic acid internally, were therefore prescribed; and I also directed my patient to drink half a pint of cider with luncheon and dinner, and to eat freely of fruits and vegetables, which were enjoyed with a zest only known to those who, like sailors, have been long deprived of such necessary articles of diet. The effect of this treatment was really magical. In the course of ten days she felt as if new life had been given her; all the nervous symptoms rapidly subsided, and though the fits of insensibility were not overcome for several months, yet they so steadily declined that there could be no doubt that their subsidence was owing to the treatment adopted. She had a slight relapse during the following spring, which immediately yielded to similar remedies.

Remarks.—Notwithstanding the preceding cases are few in number, and although the urine was not examined so minutely in some of them as it should have been, yet, while these patients continued to suffer from epilepsy, the analyses showed it to possess in all such a uniform and peculiar character, viz., low specific gravity, an unusually large proportion of mineral matters, especially of the chloride of sodium, and an exceedingly small quantity of urea and other organic matters, that it is not unreasonable to presume there must have been some connexion between the state of the blood, as indicated by the quality of the urine, and the disease in question, as cause and effect; and this presumption is supported by the fact, that all the nervous symptoms, as well as epilepsy itself, gradually declined in every case in proportion as the acid treatment corrected the abnormal state of the urine; and it is still further supported by my having ascertained that the urine had lost those peculiar qualities, in those cases in which it was examined six months after the disease was cured.

Whether the excess of soda causes absorption of the nerve-tissue in the way suggested, or whether it interferes with the nutrition of that tissue, post-portem examinations show that in a large proportion of cases, the brains of epileptics are evidently diminished in volume: in some, the entire brain, while in others, only portions have appeared to have been atrophied; and in these instances, the spaces thus formed have been filled with fluid.

In support of Dr. Prout's opinion, that persons whose urine contains an abnormal quantity of soda or potash, are especially liable to spasmodic diseases, it may be stated, that numerous instances have occurred to me, in which convulsions, spasmodic asthma, laryngismus stridulus, have succeeded the suppression of eruptions, such as crusta lactea of children, eczema of the lower extremities of aged persons, the discharges from which are alkaline; and in many instances the cutaneous affection and those spasmodic diseases have alternated.

The connexion between the latter diseases and the abnormally alkaline state of the system so produced, is shown by the urine being normally acid while the skin is discharging, and by its becoming alkaline as soon as the discharge is suppressed; and it may be repeated, that the susceptibility of the nervous system is so great while the urine is in the latter state, that the most trivial exciting cause is often sufficient to provoke a fit, or spasm, as the case may be, and that this extreme susceptibility ceases as soon as the urine becomes acid on the reappearance of the cutaneous discharge.

Lastly,—However true the theory propounded in these papers may be of a certain condition of the system producing a liability to epilepsy and other convulsive diseases, (the difference between them arising perhaps from some modification of the exciting cause,) it is admitted that epilepsy often arises from irritation of the brain, from permanent physical causes, such as spiculæ of bone growing from the inner table of the skull, from tumours in the brain, etc. But it may be asked, how does it happen that the irritation being constant, the fits are not also constant? whereas it is well known that fits arising from such causes only occur at intervals. The inference that this question leads to, is, that there must be some-

thing, in addition to the permanent physical source of irritation, to account for the actual convulsion. We must, therefore, look for an explanation to some change taking place in the system, similar perhaps to the one I have suggested, in which the generation or retention of urea or some other poison, occurs; which, when it has accumulated to a certain extent, is likely to produce so great a disposition to convulsion, that the mechanical irritation, which under ordinary circumstances is not sufficient to excite a fit, may then provoke an attack, in the same way as a spasm of the glottis may be readily induced, when the nervous system has been rendered abnormally sensitive by the blood being surcharged with alkali by the suppression of the alkaline cutaneous discharge or other causes.

These papers have so greatly exceeded the length I anticipated that they must now be brought to a conclusion, although I could have wished to have offered a few words on the various modes by which the abnormal state of the system I have attempted to describe can be produced, and on the modifications the acid treatment requires in different individuals; but I must be satisfied with offering a caution to those who are inexperienced in the use of the acid bath: that it is a remedy of great power, and that it occasionally excites considerable disturbance of the system, but which can always be prevented by moderate care and attention.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASE OF THE SUPRA-RENAL CAPSULES.

(Concluded from page 287.)

ANALYSIS OF THE SERIES, COMMENTS, ETC.

THE assertion with which the last part of this report concluded was, that as yet no case had been recorded clearly exceptional to theory as to the connexion between bronzing of the skin and disease of the supra-renal capsules. It now remains to examine the amount and character of the evidence confirmatory of that belief.

CONFIRMATORY CASES.

Of the twenty-seven cases included in the table, in twelve both supra-renal capsules were proved by post-mortem examination to be destroyed by chronic disease, and in every one of these the change in colour of the skin was marked and positive, and the death had been attended by peculiar symptoms of debility. In seven others no post-mortem was obtained, but the kind of cachexia and mode of death had very closely indeed resembled those in which, after death, the theory was confirmed. In one, the patient is still living, the symptoms quite corresponding with those usually met with, and appearing to be irremediable. In one both organs were affected by recent suppuration, and in this only a yellowish brown tint was noticed, the disease having probably not existed long enough to produce the characteristic pigmentary change of hue. In four the disease affected but one of the organs, the other remaining healthy, and in these only a slight (but yet positive) degree of the bronzing had been observed. It cannot be necessary to stop to point out that the but partial extent to which the change in tint of the skin had proceeded in the latter cases, so far from constituting any exception to Dr. Addison's opinion, strongly confirms it. Just in proportion to the extent to which the supra-renal organs are structurally disorganised, and to the length of time which they have been so, appears to be the intensity of the cutaneous discoloration. From this it seems fair to argue, that they probably stand to each other as cause and effect, and are not coincident effects of some other cause. Thus, then, of the whole number recorded, (twenty-eight,) we have twenty-five the evidence of which is more or less in favour of the theory under discussion, Let us now glance for a moment at the three

SEEMINGLY EXCEPTIONAL CASES.

In Case No. 26 the patient recovered, and, after lasting somewhat more than a month, the peculiar "dirty-brown tinge" of the skin disappeared. Now, there is every reason for believing, that, in this instance, no pigmentary change had taken place, and that the state described was rather a diffused muddiness than a real bronzing. The reason for believing so is, that the change took place suddenly, and was complete in the course of a day or two. Possibly it was of hepatic origin; at any rate it may be presumed to have had a different cause from that of the change which in all the other cases was very slowly progressive, and requiring several months for its development. In the second exceptional case, a woman who died of cancer had shown no alteration in the colour of the skin, and yet malignant deposit was found in both supra-renal bodies. Here, however, a considerable degree of functional vigour may have been retained, since neither organ was wholly involved, and in one, only a few small nodules existed. It is very possible that the portions remaining healthy may have sufficed for the wants of a body which had been reduced to extreme emaciation by long existing disease. Case 21 of the Table supplies us with what is more like a real exception than any other. It is, however, to be remarked, that no mottling of the skin had been observed, only a diffused muddy condition, and that some doubts had been expressed during life as to its being an example of true bronzing. The patient, moreover, had not been seen by the reporter for some months prior to death, and no note was made as to the state of the skin at the date of that event. On account of these circumstances of doubt, we may, perhaps, fairly hold this case as not proving anything, and, if so, the whole of the seeming exceptions are disposed of.

Having regard, then, to the large amount of evidence in support, and the very doubtful character of what little might at first sight seem to range itself on the opposite side, we may perhaps be permitted from this point to assume that the theory is well grounded, and proceed to examine as to the nature of the

SYMPTOMS ATTENDING DISEASES OF THE SUPRA-RENAL CAPSULES.

1. *Change of colour of the skin.*—The term "bronzing" probably conveys as good an idea of the exact character of the appearance assumed by the skin in this disease as could well be given. It resembles strikingly the colour of a bronzed statue from which the gloss has been rubbed off. Pressure has no effect in causing its diminution. It seems as a rule to commence first in patches with ill-defined borders, on those parts most exposed to the sun and to friction, the neck, the backs of the hands, the fronts of the thighs, the arms, etc. Around the nipple, and in other parts where pigment naturally abounds, it is generally well-marked, while others, possessing little or no pigment originally, as the palms of the hands, the ungual matrices, etc., remain as pale as ever. This tendency to show itself in patches, is strongly in support of the belief that the change is really one of deposit of pigment; which derives further confirmation from the circumstance, that in not a few cases the punctate, or even patchy deposit of black matter was observed in the mucous membrane of the mouth, and in the serous investment of the abdominal viscera. The conjunctiva usually remains pale and pearly, a condition which well distinguishes true bronzing from the various states of jaundice. The changed colour of skin, although most important for purposes of diagnosis, is probably of very minor consequence among the other departures from health which attend renal capsular disease.

2. *Debility.*—Next to the bronzing of the integument the extreme and peculiar feebleness manifested appears to be the most striking of the symptoms. Without any evidence of thoracic disease, without any great loss of flesh, the patient becomes liable to faintings, loses energy, is unable to exert either body or mind, and, in short, appears to be on the point of death from sheer weakness. In almost all the cases comprised in the Table this state of things was very well marked. In *Cases* 14 and 15, however, the loss of strength had not proceeded *pari passu* with the change in the tint of the skin and appears to have attracted attention only for a few days prior to the fatal event.

3. *Emaciation.*—That there has generally been observed a want of correspondence between the extreme debility and the degree of emaciation coincident with it, seems evident. Several of the patients are described as having remained muscular and fat up to the very last. In almost all, however, there had been some loss of flesh, and in many it had even been considerable. Dr. Addison's observation, that flabbi-

ness of the solids rather than actual wasting is characteristic of the condition, seems true of the majority of cases.

3. *Anæmia.*—In almost all cases, there would seem to have been present great depravation of the coloured constituents of the blood, as manifested by the pallor of those parts not involved in the bronzing, the general flabbiness of the muscles, the pearly state of the conjunctiva, etc. In two only (*Cases* 3 and 13) was the blood examined with the microscope, and in both those it was found to be loaded with white corpuscles. To the impoverished state of the blood is, no doubt, to be referred the breathlessness on exertion, the debility, the feebleness of the heart's action, and perhaps also the irritability of the stomach.

4. *The pulse.*—With a few exceptions, in which it became rapid, the pulse has generally been of but average frequency, and peculiar only in its extreme softness and compressibility.

5. *The tongue.*—It does not appear that any state of the tongue other than that common to most conditions of debility has been observed in connexion with this disease.

6. *Dyspepsia.*—In almost all cases prior to death, and in many for protracted periods, great irritability of the stomach was present. In most there was loss of appetite, more or less persistent nausea, and occasional vomiting, with pain and sense of sinking at the epigastrium. In the majority, it would seem that the bowels have been costive rather than otherwise, while, in a few, attacks of diarrhœa had occurred. In several instances the patients had been liable to "biliousness." Much more detailed observations as to the symptoms of indigestion present are desirable.

8. *The Urine.*—The urine was tested for albumen in many of the cases, and in some for sugar; but in no instance was any important departure from its normal constitution observed.

9. *Lumbar Pain.*—Aching, more or less severe, in the back or loins, was a symptom present in a considerable proportion of the cases. In two of these there was, however, disease of the vertebræ, by which it might have been occasioned; and the evidence respecting it is not such as to induce us to attach much importance to its signification.

10. *Nervous symptoms, convulsions, etc.*—Symptoms referable to disorder of the cerebro-spinal functions occurred in several of the cases. In three, epileptiform convulsions preceded death. In one, failure of memory, and remarkable change in temper, was observed; and in a second, numbness of the fingers, legs, and the tip of the tongue, had been present. In one, the man had suffered from tic douloureux.

11. *Odour of the Body.*—In two cases, both under care at the Brighton Hospital, it was noticed that a peculiarly disagreeable odour was exhaled from the patient's body. In one this was present for a few weeks, and in the other only for a few days prior to death. The phenomenon is not mentioned in the reports of any other case in the series, and Dr. Addison informs us that it was not noticed in any case under his observation.

Such, then, appear to be the more important of the train of symptoms observed in connexion with this disease. It is, necessarily, as yet, from the paucity of facts, meagre and inexact, but the general features of the group are, nevertheless, well characterized, and would seem to have been present with tolerable uniformity.

MODE OF DEATH.

In only a small proportion of the cases included in our series has the exact mode of death been recorded. In several the death is stated to have been that of exhaustion. In some, a peculiar form of collapse, without obvious cause, preceded it, while, in two or three others, this collapse followed very slight, and usually inefficient, causes, such, for instance, as the action of an aperient dose. In one the collapse was so extreme, and had supervened so suddenly, that poisoning was suspected. In one the patient died of pericarditis with pneumonia; and in another a torpid condition, resembling that of typhus, preceded death. In three, convulsions had been present. Speaking generally, we may say that the phenomena attending death are those of utter prostration of the vital powers, not unfrequently complicated by disturbance of of the nervous functions.

DIAGNOSIS.

The combination of a bronzed state of the skin with great systemic debility may be held indicative of disease of the supra-renal capsules; and the more marked these conditions are, the more positively may the opinion be formed. A differential diagnosis may sometimes be requisite, however, as regards the following diseases:—1. *Jaundice.*—In some states of chronic jaundice the skin may be brown rather than yellow, and great vital depression may exist. Here, however, the conjunctiva and the matrices of the nails would, by their discoloured state, prevent the possibility of deception. The tint in jaundice is also a diffused one, and does not occur in patches, as in true bronzing. 2.—*Browning from exposure to sun*, etc.—In these, the examination of parts protected by the clothes would generally be sufficient to prevent error. 3. *Pityriasis versicolor.*—The patches of pityriasis versicolor sometimes remarkably resemble those of the bronzed skin. Their limitation to the abdomen and chest, their defined outline, their furfuraceous surface, the slight itching which attends them, their contagious character, and, above all, the microscopic examination of the cuticle, furnish, however, abundant means by which to distinguish between the two. 4.—*The diffused brown muddiness of some other cachexiæ.*—The dark areola round the eye, so often seen in states of disordered menstruation, is in rarer cases found coincident with a loss of healthy tint in the skin generally, which assumes a dirty, sallow, brownish appearance. This, in exaggerated instances, might be mistaken for bronzing; and, indeed, we are not sure that Cases 21 and 26 in the series are not examples of this mistake having been committed. It would be premature, indeed, to assert that this state may not have something to do with functional, and perhaps transitory, disorders of the organs, upon structural disease of which the states of more extreme discoloration are found to depend. We have, however, no positive evidence that it does so. In the meantime, it should be borne in mind that in all cases in which bronzing is to be held as positively indicative of diseased capsules there ought to be traces of patching and mottling in some parts; and that in proportion as the tint is equally diffused over the whole body is the diagnosis doubtful.

PROGNOSIS AND TREATMENT.

We have as yet no reason for believing that in cases of true bronzing of the skin, the Physician can do other than give the most unfavourable prognosis. No recovery has yet been recorded, nor, indeed, has even temporary improvement under treatment been very marked in any case. After such an avowal it may, perhaps, seem superfluous to speak of treatment, since in our search for principles to guide us in it, we can avail ourselves only of that very delusive light which pathology furnishes. There seems, however, reason for believing, that the morbid changes to which the supra-renal bodies are liable are most of them more or less closely allied to inflammation; and from this fact one might, perhaps, be justified in selecting remedies from the class of drugs known to possess influence over that process. The exhibition of a course of mercury (in very small doses), or the use of the iodide of potassium, the patient's strength being meanwhile supported by a nutritious but non-stimulating diet, would probably be the most rational practice which could be suggested for a case of bronzed skin. As the change in colour is, however, only produced, in all probability, after the organic disease has considerably advanced, there would not, it is to be feared, be much to be hoped for in the way of restoration of function.

MORBID ANATOMY.

The cases recorded show examples of the following conditions of disease in the supra-renal bodies. A remarkable symmetry of disease appears to have existed in all excepting the cases of cancer.

1. Acute and recent inflammation ending in abscess (Case 17). 2. Atrophy with fibro-calcareous concretions. This condition appears to have been present in seven cases. In some of them cysts existed, and in several a fluid matter resembling pus was contained in the cysts, and bathed the solid fibro-calcareous concretions. These changes probably result from inflammation of chronic character. The complete disorganization of the viscus is usually effected, and in all the cases recorded both glands were involved (Cases 2, 4, 7, 12, 13, 14, and 16). 3. The conversion of the viscus into a sort of fibroid structure, with great enlargement and induration. This occurred in Cases 1 and 6, and in both all trace of healthy tissue was lost. 4. The deposit of tubercle. In three instances (Cases 3, 5, and 9), masses of deposit resembling tubercle were observed, and, coincidently, great enlargement of the organ and loss of normal texture. In two the deposit existed in both organs, and in one there was no

tubercle in other viscera. It may be doubted whether the deposit is not really more nearly allied to some form of fibrinous effusion, the result of inflammation, than to true tubercle. 5. *Cancer.*—In six (a) cases (Cases 7, 8, 10, and 11), the deposit of cancer has been observed. In all it was secondary to the same disease in other organs. In four it affected but one organ, and in two both were involved. In but one was complete disorganization of both effected.

THEORY OF THE DISEASE.

The observations of Dr. Addison, although they may not as yet have resulted in discovery of the function of the supra-renal bodies, have certainly proved them to possess some very important one. We see their destruction followed in every case by extreme constitutional disorder, loss of strength, depravation of the blood, failure of digestive power, a peculiar tendency to pigmentary deposit, and, finally, by the death of the patient, in spite of all measures for his relief. By whatever morbid change that destruction has been effected, whether cancer, tubercle, or inflammation, the same sequences appear to result, and it would seem that we are fairly authorized in classing them as consequences on it, and not as mere coincident effects of some other cause. Taking these facts in connexion with the observations of anatomists as to the very large supply of nerves received by the supra-renal bodies, and the great similarity of certain of their so-called "gland cells," to those of nerve-ganglia, the conjecture that these viscera are in some way very closely associated with the organic nervous system, seems to have much in its favour. Supposing them to exercise a presiding influence over the functional efficiency of some of the viscera of the abdomen, it is easy to see how fatal lesions of health might ensue on their destruction. Dr. Gull has pointed out the close resemblance between the pineal gland and the supra-renal bodies in minute anatomy and also in liability to calcareous deposit, and the idea seems to well merit attention.

We shall venture to conclude this report by a few words on what appear to us as

DESIDERATA IN THE FURTHER PROSECUTION OF THE INQUIRY.

1. With regard to the cases of *Bronzed Skin.* It is desirable that in all cases in which any approach to bronzing is observed, that detailed notes should be preserved, having especial reference to the following points:—*a.* The degree of discoloration, the parts affected by it, the parts retaining their healthy hue, the state of the mouth, conjunctiva, etc. *b.* The history of the alteration in colour, when it first occurred, etc. *c.* The patient's previous state of health. *d.* The patient's present health, as to emaciation, debility, dyspepsia, symptoms of nervous disorder, etc. *e.* The condition of the excreta. The urine should be carefully examined, and the fæces inspected from time to time. *f.* The state of the blood, both by microscope and chemical analysis. *g.* The presence or absence of any peculiar odour from the patient's body. *h.* The abdomen and thorax should, of course, be submitted to physical exploration, and the exact order of sequence of the various symptoms should be carefully examined into.

2. With regard to the *supra-renal capsules.* It is desirable that henceforth it should become the practice of pathologists to inspect these organs in all post-mortems, without regard to the cause of death. If appearances suspicious of disease are found they should be minutely described, regard being especially had to the extent to which the natural structure of the viscus has been destroyed. As yet so little familiarity with the very different appearances which the capsules may present in a state of health prevails even among experienced morbid anatomists, that great caution will be necessary to prevent mistakes. Whenever doubt is felt, the specimens should be submitted to the inspection of some more practised observer—an end which, we may suggest, would be well obtained by bringing them before a meeting of the Pathological Society.

3. In the publishing of cases, it is desirable that much more of detail should be given than has been done in most of those hitherto recorded. More facts are wanted, but these facts must have the stamp of accuracy and exactitude, or they will be comparatively valueless. That the important field of investigation, to which Dr. Addison has attracted the attention of the Profession, will be cultivated with zeal, we cannot doubt. Great care, however, as well as zeal, will be requisite. The success of the investigation will be greatly served, if all of us who may take part in it are careful always to bear in mind the motto of the philosophic Cavendish—*παντα μετρω, και αριθμω, και σταθμω.*

JONATHAN HUTCHINSON.

(a) Two of these are not included in the table. For one, see Dr. Addison's work, page 8; and for the other Mr. Sibley Report, *Medical Times and Gazette*, page 189.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

LEEDS GENERAL INFIRMARY.

FIBROUS TUMOUR OF THE WOMB REMOVED BY INCISION AND ENUCLEATION.

(Under the Care of Mr. THOMAS P. TEALE.)

(Reported by Mr. J. W. HOPKINS.)

SUSAN SHARP, of Leeds, aged 53, married, and mother of seven children, of whom the youngest is 17 years old, was admitted into the Infirmary November 7, 1855.

For several years she had been in delicate health; menstruation had continued regular in the time of its occurrence, but during the last two years had been excessive, and for nine months very profuse. She consulted a Surgeon in February last, who told her she was suffering from a tumour of the womb. For a few weeks in the summer she was admitted into the Infirmary, where she took the decoction of ergot, and was confined to bed. Under this treatment, the discharges of blood were much diminished, and her health was greatly improved; but, on returning home, the loss of blood was greater than before, and she again became an inmate of the Hospital in November.

On examination by the vagina, a large tumour was felt imbedded in the posterior wall, and posterior portion of the neck of the womb. The portion of the tumour occupying the distended cervix formed a rounded mass, filling the hollow of the sacrum, and extending from the posterior duplicature of the vagina to the pubes. High up above this tumour, the anterior lip of the mouth of the womb could with difficulty be reached, by passing the finger upwards behind the pubes. The tumour was round and firm, filling the pelvis. It could not be distinctly felt through the thick abdominal walls above the pubes.

On November 12, Mr. Teale made an incision through the coverings of the tumour, at its lower part, commencing at the posterior duplicature of the vagina, and extending downwards in the median line for three inches, or more. He then gradually proceeded to enucleate the mass, introducing one, and afterwards two and three fingers, and, at last, the whole hand, between the tumour and the uterine tissues in which it was imbedded. By traction with the hand, aided by lithotomy forceps, the entire mass, being already separated from its attachments, was without much difficulty removed. The cavity of the womb was intact, the tumour having been contained within the posterior wall of the body and neck of this organ. Scarcely a drop of blood was lost during the operation. An opiate, with a glass of brandy-and-water, was given to the patient.

The tumour was 6 inches long, and 4 broad, its larger circumference measuring 13½ inches, the smaller, 11½. It weighed upwards of eighteen ounces. It was found to consist of fibres, similar to those of the white fibrous tissue, without any of the yellow elastic kind. When acetic acid was applied the fibres became swollen, and nearly transparent; and numerous oblong nuclei were distinctly seen.

November 15.—The catheter was required during the two days following the operation. She now passes urine without difficulty. There has been a profuse watery discharge from the vagina, which is now assuming a yellowish tinge. There was slight pain yesterday, which was relieved by fomentation. Pulse 100, of fair strength. She takes four ounces of brandy in the twenty-four hours. The bowels not having acted, a dose of castor-oil is ordered.

30.—She has continued to improve, and has a good appetite. She has not any pain, nor abdominal tenderness. The discharge has become purulent, and is much reduced in quantity.

December 7.—She still looks pale, and has been troubled

with nausea, and other dyspeptic symptoms. The bowels confined. The discharge has ceased.

27.—Since the last date she has steadily improved, and is now made an out-patient, although not in vigorous health.

March 5.—There has not been any return of sanguineous discharge since she left the Hospital. Slight leucorrhœa continues. She has an anæmic aspect, and has not yet perfectly regained her strength, but is able to attend to her domestic duties.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 97.—Small-pox after Vaccination.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Can any of your Correspondents inform me if they have met with any cases of small-pox occurring twice after vaccination; if so, were the pustules few in number and small, and did they pass through their various stages more rapidly than is generally the case. I am, &c.

Brompton, Kent, March 12, 1856. W. Burton.

No. 98.—Catalytic Action of Medicines.

Sir,—In your Notices to Correspondents last week you give us some ideas respecting what is called catalysis. At present it is fashionable to speak of catalysis. It is a big Greek word; and, if it explains nothing, it has a learned air. But, in truth, are there any such medicines as catalytics? substances which, without themselves undergoing change or entering into combination, cause the fluids or tissues with which they come in contact to undergo change? I suspect that a good deal might be said in support of the theory that there are such medicines. There is the analogous case of a foreign body thrust into the flesh; say a little thorn or splinter. What wonderful commotion it excites! The finest possible piece of silica lodging on the cornea will cause prodigious local change, and will alter almost every secretion in the body, yet is itself unchanged. It will be replied, that this is effected through the agency of the nervous system; but this is merely shifting the place without adding to the value of the argument. It is still contact of a substance which remains unchanged, which produces a change in the nervous system; and I suppose every change in the nervous system is more or less a chemical change, and results in the καταλυσις or *dissolutio* of some of its elements.

Now, what is the difference in nature between the changes induced by a thorn run into the finger, and the changes induced when mercury reduced to the highest state of mechanical division is rubbed into the skin or absorbed from the alimentary canal? In either case, the intruding substance undergoes no change, yet it disturbs the chemistry of every part of the body. The hepatic cells, in contact with a very minute portion of mercury, behave in a different manner from that in which they behave without it; the composition of the secretions of the mouth, of the large intestines, or of any other part is altered, and the series of changes which eventuate in the elimination of the mercury must be considered catalytic, because they are produced by the contact of a substance which undergoes no change.

Still more probable is it that sundry medicines, which act upon the nervous system, do so by pure catalysis. Quinine, theine, and caffeine are found in the urine, and seem to pass through the body, and to leave it undecomposed. Ether is a powerful stimulant, but is exhaled unaltered through the lungs. But the most wonderful instance is chloroform. It is inhaled as chloroform, it exists in the blood as chloroform, and is entirely exhaled from the lungs as chloroform, and so seems to produce its marvellous effects by contact, that is, by pure catalysis, without undergoing or further participating in any decomposition whatever. I am, &c. Alpha.

No. 99.—Use of Colchicum.

Sir,—Will any of your contributors kindly inform me whether anything certain is known of the *modus operandi* of colchicum! Does it really increase the excretion of uric acid? Is veratria in any form or dose a substitute; or can it act analogously? What is contained in Blair's gout pills and similar nostrums? I am, &c. E. C. B. S.

No. 100.—Bromide of Potassium.

Sir,—Some time since it was said that the use of this salt extinguished sexual feeling, and took away tendency to chordee. Can any of your readers furnish me with facts on this point? I am, &c. Chir.

London, March 7, 1856.

No. 101.—Three Suggestions respecting Excision of the Knee-joint.

Sir,—Having noticed in the last Number of the *Medical Times and Gazette*, Mr. Hutchinson's suggestions as regards the operation of excision of the knee-joint, I beg to say that Mr. Holt, Senior-Surgeon to our Hospital, pointed out long ago, in his clinical lectures, the obvious necessity and advantage of having recourse to the three following expedients:—

1. Dividing the hamstring tendons.
2. Making an opening into the popliteal space; and
3. As regards the apparatus on which the limb is put after such an operation, to have (in the apparatus) an opening about seven or eight inches in circumference, through which the pus may escape, and the posterior wound be dressed, without disturbing the limb.

I will add a fourth suggestion, and that is, to put the operated limb in one of Ester's swinging fracture apparatus, made, of course, on purpose. By this last expedient the patient will be enabled to move in bed, be more comfortable, prevent bed-sores by change of position, and, therefore, increase the chances for a successful operation.

Two months ago, Mr. Holt had occasion to excise the knee-joint, and the three above-named suggestions were adopted with the best results to the comfort of the patient; and had the fourth expedient been put in practice, there is no doubt that the patient's comfort would have been greater, although from circumstances which will be transmitted for your publication with the general details of the case, the operation unfortunately terminated fatally. I am, &c.

Otho Vitalis, M.R.C.S., M.D.
House-Surgeon of the Westminster Hospital.

March 17, 1856.

No. 102.—German Yeast.

Sir,—Through the medium of your "Notes and Queries" may I ask the favour that you or some of your readers will inform me as to the composition of the substance called "German Yeast," which is so very largely employed, I understand, by the bakers of London in the preparation of bread. I am, &c.

March 17, 1856. X. Y. Z.

ANSWERS.

No. 95.—Pettenkofer's Test.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Concerning Dr. Kemp's remarks on "Pettenkofer's Test," published in your Journal of March 8, I beg to state, that it is quite true that albumen produces with sugar and sulphuric acid a like appearance to that produced by bile. This is a well-known fact, as Gorup-Besanez said already in the first edition of his *Zoochem Analyse*, (Nürnberg, 1850). "If the presence of the components of bile is to be proved in the *blood*, or in other fluids containing *albumen*, it is indispensably necessary to remove the albuminous substances, as these produce, with sugar and sulphuric acid, a similar change of colour as bile does." Pettenkofer's method, however, does not become useless by this circumstance, as there are several ways of separating the albuminous bodies from fluids, after which the test possesses perfect exactness. I am, &c.,

49, Finsbury-square, March 15. H. Weber, M.D.

Election of President of the Royal Irish Academy.—This election took place on Saturday evening, the 15th instant. The candidates were the Rev. Dr. Todd, Senior Fellow of Trinity College, elder brother of Dr. R. B. Todd, of Brook-street, Grosvenor-square, and Dr. Apjohn, F.R.S., the talented Professor of Chemistry in Trinity College. The scrutiny did not terminate until a late hour. At its close, Dr. Todd was declared duly elected. The office, though by charter annual, is, through re-election, usually held for five years.

Medical Times & Gazette.

SATURDAY, MARCH 22.

POISONING BY STRYCHNIA.

We live in an age distinguished for its intellectual activity, but alike remarkable for deeds of atrocious criminality. The tales of romance and the fictions of poetry are surpassed by the occurrences which are daily happening under our own eyes, and which make us doubt whether we are living in a civilized and Christian land or in a region inhabited by fierce and merciless savages. Blood is recklessly shed even without the ordinary motives of hatred and revenge; husbands destroy the wives whom they have sworn to cherish and protect; mothers plunge the deadly weapon into the life-current of their offspring; and children, with or without motives, shorten their parents' days. Nor is this desecration of the temple of life confined to the victims of the assassin, but the latter anticipates the hangman's office by rushing headlong himself into the presence of the Eternal Judge. Horrible as these reflections are, we cannot be accused of exaggerating their intensity, by any person who has observed, however cursorily, the crimes which pollute our country and degrade our species. But we leave to the historian the task of expatiating upon this dreadful epidemic of wickedness, which now overspreads the land like a pestilence; we leave to the minister of religion the duty of warning the community against yielding to temptations which lead to private demoralization and to public infamy; we leave to the judicial bench the power of wielding the sword of justice to punish offenders and to deter others from imitating their example: to us belongs the humbler, but no less useful labour of coolly and dispassionately examining, by the light of science, the evidences of murder as revealed by physiological, pathological, or chemical investigations. Among the other characteristic features of the criminality of the age, is the frequent use of poison in destroying life; a mode of destruction thought to be at once the most safe in its execution, and most difficult in its detection. The effects of poison may be mistaken for those produced by natural disease, and the tests of poisonous agents are necessarily accompanied by occasional sources of fallacy. The very difficulty of mastering chemical science renders its acquisition attainable only by the few; and the multitude, including jurymen, barristers, and judges, are unable, in a great majority of cases, even to appreciate the value of toxicological evidence. The unavoidable intricacies of the subject afford means for half-educated and pert attorneys, or for conceited and shallow barristers, to browbeat and perplex the Medical witness, who, indifferent to any interest but the cause of science, comes forward to speak the truth, and willingly admits the occasional errors to which toxicological science, like every other human pursuit, is liable.

It is unfortunate for the purpose of the murderer, but favourable to the ends of justice, that strychnia should be selected for the diabolical object of taking away life. There is, perhaps, no poison which produces such characteristic symptoms in the victim while he yet lives, or which affords more decisive evidence of its presence after death Deluded by imperfect knowledge, the murderer may, perhaps, imagine that he has purchased immunity for his crime by the minuteness of the dose of the poison,—by its mysterious effects, resembling those of natural disease,—and by the supposed difficulty of its detection among the lifeless tissues But the finger of science points to the detection of his crime, and dissipates his visionary hopes; the grain of white powder, which he anticipates will silently carry his victim to the grave, excites, on the contrary, the most violent and characteristic convulsions; a minute fraction of a grain, lying on the animal membranes after death, will exhibit, under appropriate tests, a series of resplendent and iridescent rings of colour to the chemist's view; and a portion of fluid from the intestines introduced into the tissues of a living animal, will again excite the identical convulsions which followed the first administration of the poison.

Since we last adverted to the case of poisoning by strychnia at Leeds, the inquest on the body of Mrs. Dove has been concluded, and the Jury have returned a verdict of "wilful murder" against her husband. Still adhering to our rule of refraining from remark upon the criminality of the accused, and confining ourselves altogether to the Medico-legal bearings of the case, we cannot but observe upon the luminous manner in which the Medical evidence has been given, and upon the able and impartial manner in which the Coroner has performed his duties. We cannot forbear quoting from the summing-up address delivered by the latter, the following very graphic and accurate description of the effects of strychnia upon the living body,—a description which should be carefully read by any one who may harbour the infamous thought of seeking to take away life by means of this energetic agent:—

"The symptoms commence generally from five to twenty minutes after the strychnine has been swallowed. The patient is suddenly seized with tetanic symptoms, producing spasmodic contraction of the whole muscular system; the intellect is clear, the body becomes rigid, the limbs are stretched out, and the jaws so fixed that considerable difficulty is experienced in introducing anything into the mouth; the muscles of the chest are fixed by spasmodic contraction; the body assumes the state of being bent backwards; the lower extremities are extended and stiff, and the soles of the feet are concave; the skin becomes livid, the eyeballs prominent, and the pupils dilated and insensible. After several attacks, increasing in severity, death ensues from spasm of the muscles of the chest producing suffocation."

To the commendation we lately bestowed upon Messrs. Nunneley and Morley, the Medical witnesses in the case, we have now to add a further meed of praise, for the additional light they have thrown upon the investigation by their experiments upon living animals with the fluid obtained from the body of the deceased. A portion of this fluid was administered in succession to five animals, viz., two rabbits, two mice, and a guinea-pig; and in all these animals the characteristic effects of poisoning by strychnia were produced. Five other animals were taken for a parallel series of experiments with ordinary strychnia, and the same results were obtained. We agree with Messrs. Nunneley and Morley, that the fact of poisoning by strychnia, in the present case, is put beyond a doubt.

We shall revert hereafter to this subject, so important in its Medico-legal bearings, and now so interesting to the whole community, and will at present conclude by observing, that strychnia is not a substance likely to be used extensively by the murderer, unless he courts detection. The hideous contortions exhibited by the poisoned person, so unlike the symptoms of any known disease, except tetanus, and distinguished from the latter by characters sufficiently well marked, —the ready detection of the poison after death, especially by the conjoint action of sulphuric acid and the bichromate of potass,—and the power of reproducing the tetanic convulsions in animals by the administration of the intestinal fluids,—all these characters must render this kind of poisoning easy of recognition, and reduce it to the level of a vulgar murder perpetrated by the knife, the bludgeon, or the pistol of the common assassin.

INFLUENCE OF OCCUPATION ON MORTALITY.

We have lately submitted to the notice of our readers, the unexpected discovery of the high rate of mortality among Butchers, whose remarkably healthy appearance and active habits are not easily reconcileable with the fact, that between the age of 45 and 55 they die at annually the rate of 23·10 in 1000, in England and Wales, while among Miners the rate is not more than 20·15 in 1000, and among shoemakers not more than 15·03.

The case of the Butcher presents a problem, the solution of which deserves all the attention it can receive from its scientific interest, as well as from the humane considerations it involves We revert to the subject, for the purpose of recommending that, as far as opportunity serves, the habits of the Butcher and the conditions in which he is placed, should be made the subject of careful investigation. Individual observation should be directed to the diet of the Butcher, who may use too large a proportion of his own stock in trade, and too little vegetable food—to his drinking habits—to his imprudent exposure to heat and cold—and especially to the condition of the slaughter-house.

We have alluded to the want of adequate statistics in all former attempts to determine the influence of occupation on health, as seen in the labours of Rammazzini and Thackrah; and yet it is interesting to observe how the latter ingenious writer, in the exercise of his sagacity, anticipated the truth which has now received demonstration.

Mr. C. T. Thackrah, who wrote in 1831 on the effects of the Principal Arts, Trades, and Professions on health and longevity, founding his opinions on observations made in the town of Leeds, directs his attention in the first instance to those operatives who are "of active habits, and whose employments are chiefly in the open air." He places "Butchers" at the head of this division, and appears to have felt considerable perplexity in reconciling the apparently contradictory facts presented in their case. He observes that they are subject to few ailments, and those the results of plethora. To account for their freedom from disease, he refers to those habits which lead him to class them among those who approach nearest to the perfection of the physical state. He remarks, that "they are much in the open air, and take strong exercise. Most of the masters ride on horse-back to the neighbouring markets, and often traverse the surrounding country to buy cattle."

He then notices their food and their comparatively easy circumstances. They almost all eat fresh-cooked meat at least twice a-day. They are plump and rosy; they are generally cheerful and goodnatured. Neither does their bloody occupation, nor their beef-eating, render them savage. They are not subject to such anxieties as the fluctuations of other trades produce. . . . . They live comfortably in times as well of general distress as of general prosperity. While noticing the lights of this picture, Mr. Thackrah remarks, that the atmosphere of the slaughter-house, though sufficiently disgusting, does not appear to be at all injurious to health. He held "the enormous faith," that "the odours of animal substances, whether fresh or putrid, are not apparently hurtful, and that they seem to be often decidedly useful." Pursuing a theory which still has its advocates, he states that "the atmosphere of the slaughter-house, imbued with a foreign admixture, is, moreover, less susceptible of those natural changes which produce epidemics." From which circumstance, conjoined with their diet and habits of life, "butchers are less subject than other trades to cholera and dysentery."

So far the impressions of Mr. Thackrah agree with the general estimate formed of the Butcher's life, in his time, as well as in our own; and this impression is not without its value, as it goes to show that the Butcher's occupation, if not damaged by pernicious adjuncts, would prove favourable to health and longevity. In passing, we may notice the remarkable indication which this extract gives of the progress of sound views on sanitary matters during the last five-and-twenty years; for it was in 1831 that this writer stated that "the odours of animal substances, whether fresh or putrid, were not apparently hurtful." We occasionally find the advocate of a favourite hypothesis holding the opinion of Mr. Thackrah, but we regard him as a sort of *rara avis in terris*, whereas Mr. Thackrah may be taken as the expositor of the standard creed of his day.

This writer was not, however, the manufacturer of hypotheses. Although he saw so much in the habits of the Butcher to place him in the class of those who approach nearest to the perfection of the physical state, and nothing in the slaughter-house apparently hurtful, he did not close his eye to facts which contradicted his first favourable impressions; and the conclusion to which this opposite class of facts led him, he thus ingenuously states:—

"Notwithstanding the favourable circumstances in which butchers are placed, longevity is not greater in them than in the generality of employments. I *suspect* it is even shorter than among most other men, who spend as much time in the open air." To find a cause for this unexpected fact, the writer states his conviction that "Butchers live too highly,—not too highly for temporary health, but too highly for long life."

The suspicion thus expressed will gain for its author more respect than the conclusion to which it gave rise. It is interesting to notice these old guesses at truth, and to observe the confirmation which they receive as time and truth advance. It will, perhaps, be found, that the too high living, which did not escape the observant eye of this writer, had its share in the evil for which he wished to account; but we "suspect" a much larger contribution to the painful phenomenon will be found in the slaughter-house, and its "foreign admixture," which makes it *more*, instead of "less susceptible of those natural changes which produce epidemics."

THE WEEK.

We find, from a Dublin paper, that a very proper rebuke has been administered to the Guardians of the North Dublin Union by Mr. Wilde, the well-known Surgeon of that city. It appears that Mr. Wilde had been requested to visit and report upon a number of cases of epidemic ophthalmia occurring in a part of the pauper establishment connected with the Union; and he accordingly drew up a Report in connexion with the Union Medical Officers, and presented it to the Board. No notice whatever was taken of this Report by the Union; but a few days since he received a curt and very uncourteous request to send for ten guineas, which were voted to him for his services. Most men would, perhaps, have pocketed the money and put up with the affront; but Mr. Wilde forthwith addressed a letter to the Board, complaining of the manner in which the fee was, as it were, thrown at him, without any recognition of his services in checking an epidemic malady. We are glad to find that the Board acknowledged the error, and directed their clerk "to acknowledge the receipt of Mr. Wilde's very able report upon the prevalence of ophthalmia, and his valuable suggestions for sanitary measures in reference thereto, with a request that he will accept the enclosed check for ten guineas as an acknowledgment for his services." We think that the Profession on both sides of the Channel will applaud the spirited conduct of Mr. Wilde, and will at the same time rejoice that it has, in this instance, been attended with such a satisfactory result.

A person named Hodgson has been tried and formally convicted at the Stafford Assizes, for forging a diploma of the Royal College of Surgeons, and with altering the same, with intent to defraud. The result is a ludicrous instance of the glorious uncertainty of the Law, which, however, has been pronounced by Lord Robert Grosvenor to be "an exact science." It appears that this person, Hodgson, obtained possession of a diploma which belonged to his deceased master, and that he erased the original name on the document, and substituted his own; and that he also altered the number and the date originally inscribed. It will be recollected that the College of Surgeons, who are entitled to great credit for their proceedings in this matter, applied originally for a criminal information, but that this was refused, and an indictment was recommended and preferred accordingly. The College, however, are no more successful with their indictment than with their criminal information, for, although it is clearly proved that the prisoner did forge the diploma in the manner alleged, and passed it off as his own, yet Mr. Baron Bramwell, who tried the case, expressed an opinion that the indictment could not be sustained, "because there was no evidence that the prisoner intended to commit any particular fraud, but only the general fraud of representing himself to be a member of the College." We have given the opinion of Mr. Baron Bramwell exactly as we find it, but we confess that his reasoning is too much for us. A man is clearly convicted of committing a fraud, but, inasmuch as the fraud is committed upon the community at large, *as well as* upon the College of Surgeons, it is no fraud at all, and the conviction cannot stand! The edge of justice is sometimes so exceedingly fine as to be quite invisible.

A most painful case has been partly heard in the House of Lords, being an appeal from a judgment delivered in Ireland. The case to which we refer is that of Talbot *v.* Talbot, in which a husband seeks for a divorce from his wife, on the ground of adultery. It would appear from the allegations and the evidence on the part of the husband, that Mrs. Talbot had carried on an adulterous intercourse with her groom, and that positive proof of the fact had been obtained by various witnesses. It further appears that after the detection, or supposed detection of her infidelity, Mrs. Talbot confessed her guilt to several clergymen, thus fully bearing out the evidence brought against her. The sequel of this history, so far as relates to Mrs. Talbot, is, that soon after the transactions thus alluded to she exhibited symptoms of mental aberration, and is now in confinement as an insane person. We have received some communications upon this subject, alleging that the whole story of adultery is a conspiracy concocted by the servants, that the accusation thus brought against Mrs. Talbot unsettled her reason by its utter falsehood, and in fine that she is a deeply-injured woman. In the present stage of the proceedings we refrain from offering any opinion upon the merits of this unhappy case, and shall be rejoiced to find that the lady is really innocent of the crime laid to her charge. At the same time, we cannot join in the views of those who have attributed incapacity or mal-administration of justice to the Irish Bench, which seems to have arrived at a decision which was warranted by the evidence adduced.

The New Vestry of St. Pancras, elected under Sir Benjamin Hall's Act, have inaugurated their accession to office by an Act of justice to their out-door Poor-law Medical Officers. The salary of those gentlemen, five in number, has been increased by an addition of £30 per annum to each, and in addition to this, a sum of £50 per annum has been awarded to each of them in consideration of the duties they will be called upon to perform in connexion with the Medical Officer of Health. The only opposition to this latter measure emanated, we regret to say, from a member of our own Profession, who proposed that the sum should be reduced to one-half, but this illiberal proposition did not meet with a seconder.

The deputy post-master of Rugeley has been found guilty of opening and perusing a letter written by Dr. Alfred Taylor to Mr. Gardner, the solicitor for the prosecution in the celebrated poisoning cases; and the culprit has been sentenced to one year's imprisonment; but without hard labour, in consideration of the recommendation of the prisoner to mercy on the part of the jury. Whatever may be the result of the trial of William Palmer for the crimes with which he stands charged, it cannot be concealed that extraordinary efforts have been made during the proceedings to defeat the ends of justice, and that almost all the parties who came within the sphere of Palmer's influence appear to have yielded to a kind of fascination in protecting him from the consequences of his real or supposed offences. His confidential communications with the Coroner of Stafford still require explanation.

It will be perceived that a question has arisen whether the new Medical Officers of Health have a right to inspect Workhouses. The Holborn Union Workhouse, according to the Report of Dr. Gibbon, must be somewhat in the same condition as were the notorious Workhouses of Islington and St. Pancras; and we do not wonder that the Holborn Guardians are opposed to inquiry. We hope that the Medical Officers of Health in each district will visit and report upon the condition of all the Workhouses in the Metropolis; for it is only by a fearless discharge of such a duty that the condition of the unhappy pauper inmates of these establishments can be meliorated.

REVIEWS.

Epidemics, considered with relation to their Common Nature, and to Climate and Civilization. In Two Lectures, delivered at the Philosophical Institution, Edinburgh, November, 1855. By Southwood Smith, M.D. Pp. 72. Edinburgh: 1856.

Dr. Southwood Smith has been so well known for many years in connexion with sanitary matters, that any work upon the subject coming from him must at once command attention The lectures present us with a luminous and concise view of the different epidemics which from time to time have appeared upon the earth, so far as human records have enabled the author to investigate the subject; and considerable attention has been paid to the circumstances under which epidemic diseases are propagated and extended, or shortened and mitigated. Very curious and instructive statistical tables are given, showing the increased value of human life in the present day, as compared with former epochs; and the conclusion is not unfairly drawn, that, by further efforts in the cause of Sanitary Reform, mortality might be still more diminished. Dr. Southwood Smith's lectures conclude with an urgent appeal to the inhabitants of Edinburgh, to apply to their city the provisions of the Act for improving the health of towns.

Journal für Kinderkrankheiten. Nov. 1855.—Feb. 1856.

The original articles in these two parts of this Journal, are:— 1. Several short contributions on Rachitis, Scrofulous Tumours, Spotted Fever, Dentition, and Softening of the Stomach in Children, by Dr. C. A. Tott; 2. A case of Peritonitis with Rupture of the Vermiform Process of the Cœcum, in a Child, by Dr. Düben, of Stockholm; 3. Partial Atrophy of the Cerebral Hemispheres, in a Child two years old, by Dr. Abelin, of Stockholm; 4. Inflammation of the Liver, in a Child, by Dr. Mauthner, of Vienna; 5. Post-mortem Examinations at the Children's Hospital at Frankfort

—Cerebral Hæmorrhage—by Dr. F. J. Stiebel, jun.; 6. On Infantile Convulsions, by Dr. H. L. Tillner, of St. Petersburg; 7. Contributions to the Study of Spinal Curvature, by Dr. Eulenburg, of Berlin.

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1. *Experimental Researches applied to Physiology and Pathology.* By E. Brown-Séquard, M.D. Pp. 124. New York. 1853.
2. *Recherches Expérimentales sur la transmission croisée des impressions sensitives dans la moelle épinière.* Par le Docteur E. Brown-Séquard. Pp. 19. Paris. 1855.
3. *Propriétés et Fonctions de la Moelle Epinière.* Rapport sur quelques Expériences de M. Brown-Séquard. Par M. Paul Broca. Pp. 35. Paris. 1855.
4. *Experimental and Clinical Researches on the Physiology and Pathology of the Spinal Cord, and some other parts of the Nervous Centres.* By E. Brown-Séquard. Pp. 66. Richmond (U. S.) 1855.
5. *Des Phénomènes de Contraction Musculaire observés chez des individus qui ont succombé à la suite du choléra ou de la fièvre jaune.* Thèse, par le Dr. George Henry Brandt. Pp. 43. Paris. 1855.

We feel that we have delayed too long the notice of these valuable papers, and even now have to regret that the space at our disposal will permit of little more than a very brief allusion to the most important of the researches which it is their object to detail. Startling results have certainly followed the vivisections performed by M. Brown-Séquard, in respect of the Physiology of the Spinal Cord; and it is to these, and to the support which his conclusions derive from pathological observations, that we would at present direct our readers' attention.

It has long been a matter of belief that, while the anterior columns of the spinal cord conducted voluntary motor influences downwards to the muscles on their own side of the body, the posterior columns and part of the lateral were concerned in carrying upwards sensorial nervous impressions also from their own side. From the experiments of M. Brown-Séquard dates a new era in the physiology of the spinal cord; and we will endeavour, as briefly as we can, to point out what he has proved by careful and repeated sections in various ways, of the spinal cord, in a variety of animals; sections made in the presence of numerous distinguished physiologists, who were on the alert to detect fallacy, and who have reported most favourably on the correctness of the conclusions drawn.

Results of lateral section of the spinal cord.—This section, made so as to divide the whole of one half of the cord (*i. e.*, one anterior, lateral and posterior column) shows that the *nervous fibres which conduct sensory impressions cross or decussate all along in the spinal cord.* Hence it happens that, when a section of this kind is made, sensibility is lost on the *opposite* side, below the section; while it is not lost, but in fact is exaggerated, on the same side as the section, which only exhibits the well-known paralysis of motion.

The impressions on the left side of the body then are transmitted (mostly) by the right side of the spinal cord, and *vice versâ*.

When a longitudinal section is made along the median line of the cord, at the part giving nerves to the lower extremities, the decussating fibres of both sides are necessarily divided, and sensory paralysis affects both lower extremities, while power of voluntary motion remains. A very curious result has been further observed in the instance of animals which have undergone the lateral section, namely, that they have become subject to a convulsive affection resembling epilepsy, but differing from it in the evident absence of loss of consciousness.

Section of a lateral half of the *medulla oblongata* gives, as regards sensibility, the same results as section of a lateral half of the spinal cord.

With respect to the seat of the decussation of the *voluntary motor fibres*, M. Brown-Séquard holds the opinion that in man, while it cannot be maintained that they *all* decussate in the medulla oblongata, where the fibres of the lateral columns cross each other to form the anterior pyramids, yet that the number of these fibres which do not decussate there is certainly small.

In the fourth work on the list at the head of this article, the correspondence of these views with pathological observations is most clearly established. "According to the seat of an alteration in the cerebro-spinal axis, producing a paralysis, there are three different kinds of paralytic effects which may exist. *a* The alteration being in any part of the encephalon, except the inferior part of the medulla oblongata,—the paralysis of voluntary movement and of sensibility, exists in the side of the body opposite to the side of the disease. *b* The alteration occupying an entire lateral half of the inferior portion of the medulla oblongata, at the level of the decussation of the pyramids,—the paralysis of voluntary movement exists on both sides of the body, but incomplete, and the paralysis of sensibility only on one side, and it is opposite to the side of the disease. *c* The alteration occupying the entire thickness of a portion of a lateral half of the spinal cord,—the parts of the body situated behind it, on the same side, are paralyzed of voluntary movement, and the corresponding parts, on the other side are paralyzed of sensibility."—P. 30. But "as the sensitive nerve fibres, coming from one side of the body have to pass through the corresponding side of the spinal cord to go to the opposite side of the organ, it is easy to understand that an alteration occupying the entire thickness of the cord, is able to produce a paralysis of sensibility, together with a paralysis of movement in the same side of the body."—P. 32.

In explanation of certain pathological difficulties in connexion with crossed paralysis, our author says, "That it seems that, in some men, the sensitive and voluntary motor nerve fibres do not decussate at their usual place, and that, in consequence, some rare cases may exist in which an alteration in one side of the pons Varolii or of the medulla oblongata, will produce paralysis of the same side of the body."—P. 66.

Results of experiments on the posterior columns of the spinal cord.—In referring to these, we will endeavour to follow the order of the experiments recorded by M. Broca, as made in the presence of himself and other members of the Société de Biologie, by M. Brown-Séquard. *Section of the posterior columns* gives rise to pain and convulsive movements. Sensibility in the parts below the section *still remains*, and hence it is to be concluded, that "these columns are not indispensable to the transmission of sensory impressions;"—in fact, *hyper-æsthesia* of the lower limbs followed the section made in the lumbar region. On examining the sensibility of the divided portions of the columns themselves, it was found that while the cephalic portion was sensitive, the caudal segment was much more so—a fact which reverses all our ideas of the *direction of the nervous currents.* He found, also, that the grey matter of the cord was insensible, although, as will be seen, it is the true conductor of sensibility, which, together with power of motion, disappeared on its section in the parts below, even though the whole of the anterior columns, and about a third of the lateral columns, were left entire. In experiments again where all of the cord except the posterior columns, was divided, sensibility and power of motion disappeared in the parts below.

The hyper-æsthesia, once established in the hinder part of the body by section of the posterior columns, remains during the lifetime of the animal; and both this and the fact of sensibility of the caudal segment of these columns remaining and being excessive, are shown to be only explicable on the view that there are descending as well as ascending fibres in these columns, and that the latter are the more numerous. In fact, it would appear, from experiments made to ascertain the point, that these descending fibres run down a very considerable distance before they communicate with the grey matter which is to conduct the impressions they transmit to the sensorium. Moreover, it appears that the restiform bodies which have hitherto been regarded as transmitting impressions upwards, consist of fibres *all* of which conduct downwards.—"At no epoch, perhaps, has the physiology of the nervous system been overturned by a revolution more radical or more rapid. Yesterday it was an harmonious whole, formed of undoubted propositions, ingenious explanations, and seductive theories—to-day it is a chaos. It was then a beautiful science, of which the nineteenth century was proud, and now it is a mass of ruins."

The subjects of M. Brown-Séquard's researches, as detailed in the first work on our list, have relation principally to the nervous system and muscular irritability; and the *brochure* of Dr. Brandt is a very praiseworthy treatise, applying the investigations of Brown-Séquard, upon the latter point, to the explanation of those remarkable movements which have long been known to occur after death in persons who have succumbed to yellow fever or cholera.

FOREIGN CORRESPONDENCE.

FRANCE.

(From our Paris Correspondent.)

PARIS, MARCH 11, 1856.

THE remarkable book of Dr. Addison, and the interesting articles published in the *Medical Times and Gazette*, upon the diseases of the supra-renal capsules, begin to attract much attention in France. Many of the Medical Journals have given an account of Dr. Addison's great discovery. In the last number of the *Archives Générales de Médecine*, Dr. Lasègue, in a good historical summary, explains the state of our knowledge, or, rather, of our ignorance, as to the physiology and pathology of these small organs. He borrows much from a paper published by M. Rayer, (in *L'Expérienee*, 1837,) a paper in which almost all the cases of diseases of these organs, then on record, have been analyzed. Dr. Lasègue calls attention to a fact stated by Cassons, (*Observ. Météorol. faites sous la Zone Torride*, 1789,) and found eorrect once by Meckel;—that the supra-renal capsules are larger in Negroes than in Europeans.

Three communications made last month, at the *Societé de Biologie*, by Dr. Brown-Séquard, seem to introduce some interesting particulars into our knowledge of the pathology of the supra-renal eapsules. At first, Dr. Brown-Séquard mentioned that, more than four years ago, in 1851, (*Comptes Rendus de la Soc. de Biol.*, 1851, p. 146, and *Gaz. Méd. de Paris*, 1852, p. 73,) he had reported the results of many experiments, proving that, after certain injuries to the spinal eord in animals, the supra-renal capsules always beeome hypertrophied, after a few months. If the animals are killed a few days after the injury to the spinal cord, the supra-renal eapsules are found in a state of hyperæmia, and sometimes they eontain a clot of blood in their medullary substance. If the animal lives two or three months, or much more, after the injury, these organs are found to be twice or three times as large as in their normal state. The part which then becomes hypertrophied is the medullary substance. Since the year 1851, Dr. Brown-Séquard has had the opportunity of opening more than a hundred animals, upon which he had severely injured the spinal cord, and, in all these cases, he has found the supra-renal capsules in a state of congestion when the injury was recent, and hypertrophied when it had been inflicted many months before.

These facts seem to establish positively the existence of an influenee of the spinal cord on the blood-vessels, and on the nutrition of the supra-renal capsules.

Lately, examining the supra-renal capsules of animals that had died of a very frequent disease, Dr. Brown-Séquard found that, in all the cases, there were morbid alterations in these organs. Instead of having its normal light-yellow colour, the cortical part of these small bodies had almost the same colour as its medullary substance: that is, a brown-chocolate colour. The blood-vessels of these supra-renal eapsules were in a state of congestion in all the cases. In five eases out of seven there was an evident hypertrophy of the two capsules. In two cases, there was a serous cyst in one of the capsules. In one of the cases, it was impossible to distinguish the cortical from the medullary substance. In another ease, the hypertrophy was very considerable; the length of one of the eapsules was three times the normal length. In all the cases, the consistence of these organs had diminished, and in some cases they were extremely soft.

The symptoms consist in a considerable weakness, and almost always, during the last days, in a half-liquid diarrhœa. At last convulsions take place, and the animals die in less than half-a-day after these have begun. Frequently, convulsions cease for a time, and then come on again. In the intervals of the fits, the animals seem to be paralytic. As yet, no change in the colour of the skin has been observed. In one case, where the right supra-renal eapsule was much more altered than the left, the convulsions were by far more violent and frequent on the right side of the body than on the left.

This disease, which is extremely common in rabbits, and which is rare in guinea-pigs, seems to be constantly fatal, at least when convulsions have begun. Of the seven cases of this disease which have been seen by Dr. Brown-Séquard, since he knew of the discovery of Dr. Addison, six have been observed in rabbits and one only in a guinea-pig. The most careful examination of the brain and spinal cord in these eases has not shown any disease in these organs. In one of the cases only—the last—the blood has been examined, and the red globules have been found altered; their shape was irregular, and their circumference dentated. The number of white capsules seemed to be much greater than usual, although the spleen appeared to be healthy. A microscopic examination of the supra-renal capsules, in two eases, showed an entire absence of the eharacteristic cells of the organ. There was as much fat as usual, and the well-known granules of the organ seemed to be normal.

About 200 healthy rabbits and guinea-pigs, which have been killed by Dr. Brown-Séquard in a course of experimental physiology, have had their supra-renal capsules examined carefully. In none of them were the supra-renal eapsules diseased. It seems, therefore, that there is a relation of causality between the morbid symptoms, (weakness, diarrhœa, convulsions,) and the state of the supra-renal capsules, in the seven cases where they have been found altered.

Now, if we take notice of the fact, that in the animals in which Dr. Brown-Séquard has found that an injury to the spinal cord is followed by a hypertrophy of the supra-renal eapsules, and by a convulsive affection which resembles epilepsy, it seems that we are entitled to admit a relation between the state of these glands, the state of the spinal eord, and the existence of convulsions. We are led, besides, by facts observed by Dr. Brown-Séquard in the seven cases of that strange disease which is so common in rabbits and guinea-pigs, to admit that there is a relation between the nervous phenomena which Dr. Brown-Séquard has recorded and the disease of these organs; and, if we examine the cases published by Dr. Addison, and those eollected by Mr. J. Hutchinson, we find that various nervous phenomena existed in all the eases (weakness, cephalalgia, vomiting, vertigo, numbness, paralysis, loss of sight, loss of memory, eoma, and convulsions).

Jacobson has already found that the supra-renal capsules are frequently altered in cases of diseases of the spinal cord and of the brain. Bergmann has related two cases of coexistence of diseases of the brain with considerable alterations of the supra-renal capsules. Hewson, Meckel, Klein, and Rayer had recorded cases of acephalous monsters, in which the supra-renal bodies were atrophied or missing.

Dr. Brown-Séquard does not try to explain the relation existing between the cerebro-spinal system and the supra-renal capsules. He merely points out, that there is a great relation between these different parts, and he calls the attention of those Physicians who have frequent opportunities of dissecting the bodies of persons who have died from nervous diseases, to the state of the supra-renal capsules.

M. Grun, in a recent letter to the Academy of Sciences, says, that *tinea favosa* is quickly cured by the application of a current of sulphurous acid.

Messrs. Bourgnignon and Delafond have discovered a new species of acarus existing in horses, and transmissible to man. Until their researches, only one species of acarus was known to live upon the horse, and this species is not capable of being transmitted to man.

Dr. Jules Guérin has read a paper to the Academy of Sciences, in which he tries to prove that tendons are contractile, but that their contractility is not of the same kind as that of muscles. He has not, as yet, succeeded in exciting contractions in tendons by the application of galvanism.

At the Academy of Medicine a long discussion is taking place upon the treatment of ophthalmia by occlusion of the eyes.

Death is striking upon this Academy. There have been six deaths in less than a year, and the Academy is now reduced to ninety-five, so that there are five vacancies, for which there are more than forty candidates.

GENERAL CORRESPONDENCE.

POOR-LAW MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—In my last letter, the following words, "Salaries of the," were omitted in the quotation from the statement of Mr. Bouverie, which should read as follows:—"That with regard to the Medical districts, and *Salaries of the* Medical

Officers, these were matters not immediately under the control of the Poor-Law Board, these being settled in the first instance by the Guardians." This correction is important, as it proves the *utter inutility* of petitioning the Poor-Law Board on the subject. I am further strengthened in this opinion by the resolutions to petition Parliament, passed at meetings held last week in London by the Associated Poor-Law Medical Officers of the City of London; and at Cambridge, by the Medical Officers of several Unions of that town and neighbourhood. I am, etc.

RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, March 18, 1856.

THE LEUCOCYTHEMIA OF BENNETT.

[To the Editor of the Medical Times and Gazette.]

SIR,—The letter of your correspondent, "E. T." in your last number, is somewhat obscure. Will you permit me to ask him,—How, if Professor Bennett discovered this pathological condition in March, 1845, it can be claimed for Professor Virchow, who saw it for the first time in August following? I am at a loss also to comprehend what the statement made by Dr. Bennett, viz., that the corpuscles are indistinguishable from those of pus, in his second case, has to do with the question. Whether they do or do not resemble pus, whether they are or are not the colourless cells of the blood, may be points for discussion. But if Dr. Bennett detected a new disease in March, and Virchow in the following August, and if the first observer published his discovery in October, and the second six weeks afterwards in November, on what principle of common sense can such discovery be claimed for Virchow? I am, etc. L. O.

THE NEW MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

SIR,—I am requested to ask you to insert the following Resolutions in your next number. I am, etc.

E. J. SHEARMAN, M.D.

Rotherham, March 12, 1856.

At a meeting of the Medical Society of Rotherham, present: Dr. Shearman, President, Dr. Robinson, Mr. E. Robinson, Mr. Darwin, Dr. Hardwick, Mr. Stone, Mr. C. Mellor,—it was resolved:—

"That the Medical Practitioners of Rotherham, observing the absence of any clause in the proposed Medical Act for preventing illegal practice by parties not claiming or admitting to be registered, do memorialize the Committee of the House of Commons to insert the clause in the present Apothecaries' Act, or one equally stringent, for that purpose, before the Act is passed."

"That the thanks of the meeting be given to the President."

BRONZED SKIN.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the last number of the *Medical Times and Gazette* I observe it laid down as an axiom, "that bronzed skin is indicative of a fatal cachexia" etc. As the subject is now much before the Profession, I make no apology for transmitting to you the following case:—

I was in attendance upon an officer in the Company's Service in Bangalore, in 1849, who had suffered severely from fever, and had fallen into a low cachectic state; he suffered from constipation to a great extent, and his secretions and general health were much out of order. He called my attention to a bronzed appearance of the skin on his chest, in large patches, which gradually encircled his body; the bronzing then spread up to his neck, and lastly appeared in considerable quantity on his arms and thighs; the disease resisted every mode of treatment, and as the state of his health unfitted him for duty, I advised a trip to sea, and sent him for two years to Australia, where he recovered his health, married, and eventually returned to his duty. He is now alive and well after a lapse of six years; but I am sorry that I can record nothing on the present appearance of his skin, as I left India before his return to it. I am, etc.

CHARLES T. SMITH, L.R.C.P., Madras Army.

East India United Service Club, 14, St. James's Square, March 10.

LUNATIC CRIMINALS—THEIR RESPONSIBILITY.

[To the Editor of the Medical Times and Gazette.]

SIR,—The decision of the Government in the case of Westron, for the murder of Mr. Waugh, is, I conceive, a most important one; and with you I rejoice to see that a precedent is established for the punishment of these half-mad assassins. Five years ago, in my work on the Plea of Insasity (a), I urged the folly of considering an offender irresponsible because he suffered from some degree—often a very small degree—of mental unsoundness; and contended that our Continental neighbours took a much sounder view of the matter in permitting the mental condition of the culprit to influence the *amount* of punishment, without admitting some previous trifling departure from rational conduct as an excuse for the most atrocious crimes. It is notorious that insane persons, as a rule, know the difference between right and wrong. The assumption that they did not was the foundation upon which rested the old system of treatment; and the recognition of the fact, that persons may be insane, and yet not utterly bereft of reason, has led to the present enlightened system of dealing with them. But while our asylums attest the existence of more correct views on the subject, our laws remain the same, and the Judges persist in asserting that an insane person must be regarded as sane, and punished accordingly, unless it can be proved that his malady had made such progress that he cannot distinguish the difference between right and wrong. It has been in vain that all who have had large experience on this subject have protested against this doctrine. What had once been laid down as the law must remain so, all experience and facts to the contrary notwithstanding. Happily, however, the public, represented by the intelligent jury who tried Westron, have been able to see the truth; and in doing their duty they have conferred, as I believe, a great benefit on society. Now that the principle is admitted, and that the Government has acted upon it, of making *some* allowance for the mental condition of an offender, we may hope that the law may be revised, and made more in accordance with experience and common sense.

I am, etc.

WILLIAM WOOD, M.D.

54, Upper Harley-street, Cavendish-square.

LOCAL ANÆSTHESIA.

[To the Editor of the Medical Times and Gazette.]

SIR,—I think too much importance has been attached by the writers on both sides to the case in Guy's Hospital operated upon under anæsthesia from cold. It was altogether exceptional; and, whether the cold was applied for six, ten, or twenty minutes (for all these times have been assigned), no useful inference can be drawn from it. It is certain, from the experience of others, that wounds heal quickly after ice and salt have been applied a minute or two; but a longer period must not be condemned, because in *one* case it seems not to have succeeded. Still it would appear, from a paper on anæsthetics in the last number of the Dublin *Journal of Medical Science*, that too little care is taken in the use of cold at certain London Hospitals; for the writer mentions his having seen a frigorific mixture applied for twenty minutes,—a period surely unnecessary and inconvenient, if not hazardous.

Your Correspondent on this subject, last week, does not write with much clearness. He says that, although he once thought the period had been longer, he found, on inquiry, that only six minutes had been occupied by the cold application in the case at Guy's Hospital; but he omits to mention what time was required to produce congelation. Now, it is possible that this was not produced at all; for another of your Correspondents says, that ten minutes are often required to effect it; or if, on the other hand, it had been produced quickly, six minutes may have been too long a period.

It is impossible to form a correct judgment from such imperfect data. I am, etc.

March 15. CHIRURGUS.

(a) "Remarks on the Plea of Insanity." Longman and Co.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MARCH 11, 1856.

CÆSAR HAWKINS, ESQ., President, in the Chair.

ON the motion of Mr. Quain, seconded by Mr. Curling, a vote of thanks was unanimously accorded to Mr. Dixon, the late Librarian, to whom it was also resolved to present a handsomely-bound copy of the Catalogue as a slight testimonial of esteem and recognition of service.

A paper was read entitled

HOURLY PULSATION AND RESPIRATION IN PHTHISIS, WITH ITS RELATION TO SLEEP, FOOD, SUNLIGHT, ETC.

By EDWARD SMITH, M.D.,

Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

The author commenced his paper by stating that this investigation was made in June, 1855, and embraced the rate of pulsation and respiration at each of 144 consecutive hours, or six days and nights, in three women and three men, aged 20, 22, 22, 40, 41, and 45 years, all of whom had cavities in the lungs, but were able to take sufficient food and exercise. The rate was ascertained in the recumbent position, and for this purpose the patients were required to lie down five minutes before each hour. The author first discussed the rate of pulsation, and then that of respiration; and under each head considered the rate both absolutely and as influenced by disturbing causes. The paper was accompanied by numerous tables and diagrams. He ascertained that pulsation is lowest from one to five a.m., and highest from ten a.m. to ten p.m. The effect of sleep is to lower pulsation, and of food commonly to raise it; but the rate of the pulse was increased if the patient rose earlier than usual, without taking breakfast at an earlier hour. The variations in the temperature of the Hospital at different hours were very slight, and did not appear materially to influence the pulse. Moderate and gentle exercise also produces little effect, while sunlight powerfully excites pulsation. Respiration in phthisis is constantly much more rapid during the night than in the day; food also produces a well-marked effect in increasing the frequency of respiration. There is a closer correspondence between the temperature and respiration than between temperature and pulsation; but the hours of maximum and minimum respiration did not accord with those of temperature. The effect of sunlight upon respiration in phthisis appeared to be null. The ratio of the rate of respiration to that of pulsation in phthisis varies with every hour of the day and night, but it is highest in the night, when the pulsation is the lowest, and the respiration highest. The lowest ratio observed was 1 to 5·8, and the highest 1 to 1·4. The author inferred from his investigations that, as profuse perspirations occur in phthisis during sleep, and as in both day and night sleep the pulse is lowered, and to a very great extent in the night, he considers that the former may much depend upon the latter; and acting upon this impression, he has exhibited food during the night with great advantage in preventing perspirations. As day-sleep does not depress the pulse so much as night-sleep, the perspirations may be somewhat prevented by curtailing the former and encouraging the latter. He also recommends early rising, care being taken to exhibit food accordingly. Too much sunlight should be guarded against in summer, while its deficiency in winter, and in close, dark streets and alleys is likely to maintain the state of low vitality which is so essential a part of the disease. The low state of pulsation maintained by many hours of darkness, with the increased ratio of perspiration during sleep, indicates the necessity for the administration of nutritious food during the night, and this will also allow the meals taken during the day to be moderate in quantity, and so lessen the unnatural day-elevation of the pulse. This might also be accomplished by exhibiting oleaginous substances, as the cod-liver oil, the last thing at night. The author thought that the aim should be, to increase respiration disproportionately to pulsation. This may, probably, be effected by remedies which give tone to the system, but it is shown to be accomplished by food, and especially by sleep. Hence the due cultivation of the horizontal posture, with frequent food and day-sleep, is indicated; early retiring to rest had also the same effect. The author referred to the low ratio of respiration to pulsation, which had been found to exist in persons of unusual stature, and in the early stage of the disease.

Dr. Quain asked what diet was given in the author's experiments, and whether the effects were due to the period of the day at which the food was taken or to the nature of the food itself. He also asked whether the author had found the same changes in persons in different stages of phthisis?

Dr. Smith said, his paper contained a statement of the food given at each meal. Generally the breakfasts consisted of tea and coffee, without animal food; the dinners, of animal food, with vegetables, and sometimes beer; at tea no animal food was taken; and the suppers consisted of rice and milk. Each of the six cases had cavities.

Dr. Mayo said, if full details were given in the author's paper of the cases referred to they would prove of great value; if not, much more extended observations would be required in order to establish any useful conclusions.

Dr. Webster believed the author was right in stating that the pulse was higher in sunshine than in darkness; but this, he thought, was owing to the variations of temperature rather than of light. The pulse often flagged considerably about two hours before sunrise—the period at which most deaths occurred (and death was commonly occasioned by a stopping of the pulse), and at which the temperature suddenly fell.

Dr. Cursham considered that great influence was exercised by the quantity as well as the quality of food. Respirations increased more after tea than after any other meals; and it was a known fact that many persons drank enormously of that beverage, so as to distend the stomach, and prevent the free action of the diaphragm, thus interfering with the process of respiration.

Mr. Chalk had been in the habit, in scrofulous cases complicated with pulmonary mischief, of exhibiting stimulants in order to check perspiration, giving them about half or three quarters of an hour before the perspiration was expected. He could corroborate the views of the author as to the efficacy of this mode of treatment.

Mr. Pollock asked the author how, if his patients suffered when exposed to the excessive heat of the sun, he could explain the notion that a change to a warm climate was beneficial in phthisical cases.

Dr. Schulof asked if the author had taken notice of the particular constitutions of his patients.

Dr. Smith said, that some of the questions could best be answered by a reference to another series of investigations at the Hospital, in which twelve patients had been under examination for a month, strict account being taken of everything that passed in and out, and of the rate of pulsation and respiration in the three postures of lying, sitting, and standing, and at different periods of the day. One object in instituting the experiments was to determine the ordinary effect of different kinds of diet. He had no doubt that animal food excited the pulse more than any other. Tea was a most powerful stimulus, often increasing the rate of the pulse more than a glass of wine. He frequently employed it with great advantage in checking perspirations. The hourly changes of the temperature of the wards were inconsiderable, and very different from those of the external atmosphere; and he was convinced that the effect of sunlight ought to be taken into consideration in regard to the changes which he had described. As to change of country, those cases which bore heat well in health, there being no considerable increase in the pulsation, should be sent to a hot climate; while those cases that bore heat badly in health would be injured by such a change. The close correspondence of the cases from day to day would seem to show that the observations had been correctly taken, and that the truth had been arrived at.

CASES OF PARAPLEGIA ASSOCIATED WITH GONORRHŒA AND STRICTURE OF THE URETHRA.

By WM. GULL, M.D.

The author commenced his communication by alluding to cases read by Mr. Stanley before the Society, in 1833, from which that gentleman had inferred that a morbid impression on the cord through the sentient nerves might be reflected outwards to the extremities, and so occasion impairment of

motion and sensation, and paraplegia, without organic lesion of the cord itself. The correctness of this inference the author questioned, believing that, without microscopic examination, the condition of the cord could not be decidedly ascertained: and in proof of this he quoted a case of paraplegia, under the care of Mr. Hilton, in which no appearances of disease were detected in the cord till it was examined with the lens. He then detailed the particulars of these cases. In two of them there was paraplegia from spinal arachnitis and softening of the cord, following retention of urine and stricture, gonorrhœa and chronic gleet. In the third case, paraplegia occurred during gonorrhœa, and the patient recovered. From these cases the author inferred that the occurrence of paraplegia with gonorrhœa is due to an inflammatory affection of the cord, and he further contended that this opinion was confirmed by one of the cases published by Mr. Stanley.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

February 19, 1856.

Mr. Arnott, President, in the Chair.

[Continued from p. 247.]

Dr. Bristowe exhibited a specimen of

MYELOID TUMOUR OF THE HUMERUS.

The arm was removed from a young man, about two years ago, by Mr. Simon, and the history of the case has been already published in the Hospital Reports of the *Medical Times and Gazette*. The tumour originated without any obvious cause, and had been growing for about six months at the time of its removal. It consisted partly of bone, partly of fibroid tissue, and partly of a soft, pulpy material, which presented, under the microscope, large numbers of the cells peculiar to myeloid growths. These cells were very large, sent off numerous processes, which, in some instances, served to connect neighbouring cells, and contained large numbers of nuclei, occasionally upwards of seventy or eighty. The deltoid muscle was stretched over the tumour; and through the substance of the muscle and over the surface of the tumour were scattered large, tortuous veins, blocked up and distended by pulpy contents, which were found to have precisely the same characters as the myeloid tissue of the tumour. At the operation many of these veins were cut across, and their continuations were left in the flap. A considerable portion of the deltoid, however, subsequently sloughed, and, as there was no return of the disease during the patient's stay in the Hospital, which was six months or more, it was concluded that all the affected veins had come away with the slough. The interesting points in the case are, 1st. The great size and beauty of the myeloid cells; and, 2nd, the prolongation of the myeloid tissue into the veins. From the latter circumstance one would have been disposed to consider that, had the disease been cancer, it would rapidly have extended to some of the internal organs, and have produced speedy death. As, however, although the patient remained some months in Hospital, he greatly improved in health, and manifested no sign or symptom of malignant disease, there was strong reason to believe that the disease was not extending, and hence that it was not malignant; a view which had been previously entertained from the consideration of its microscopical character.

Dr. Bristowe also exhibited a specimen of

TUMOUR IN THE PONS VAROLII.

The patient from whom the specimen was taken was a man 33 years of age, who, for some months, had been suffering from epilepsy, and latterly had become paralyzed and comatose. He was under Dr. Barker's care, in St. Thomas's Hospital. The tumour was about the size of a pigeon's egg; and, although it formed a defined projection above the surface of the brain, its deeper parts became gradually blended with the brain-substance in which it was imbedded. The chief interest lay in the microscopical character of the growth. It consisted of elongated cells of considerable size, which dwindled away at their extremities into cylindrical fibres. These fibres were, in some parts distinctly hollow, and here and there presented fusiform enlargements; and it was distinctly seen in some cases that two, or even more, cells were connected by such fibres. Occasionally the cells gave off three, or even four, fibres. The cells contained from one to three or four oval nuclei. Dr. Bristowe thought that the growth of the tumour was very similar to that of myeloid tumours. That in both cases, the cells constituting them had a tendency to branch, and the branches to enlarge into cells, similar to those from which they originated; and that there was in both a tendency to the formation of many nuclei in the cells.

Mr. Sibley exhibited a specimen of

VILLOUS CANCER OF THE BLADDER.

The patient, a woman, of middle age, had died, under the care of Dr. Thomson, in the Middlesex Hospital. For three years she had been liable to pain in micturition, and the occasional appearance of blood in the urine; there had, however, been no loss of general health until within four months of death. Latterly, the symptoms of vesical irritation had been very severe. The urine had been repeatedly examined, but showed pus only, and no cancer cells. At the autopsy, the bladder was found to have, growing from its base, a pedunculated mass of "villous cancer," as large, when floating, as a small fist. It was very finely fimbriated in all parts, and its villi were covered by epithelium. Microscopically, its structure consisted of fibres, and very many free nuclei. Its naked-eye aspect was strikingly like that of the chorion of the fœtus. There was no development of the disease in any other organ of the body. Mr. Sibley observed that, although classed by Rokitanski, Paget, etc., as cancers, these growths appeared to differ in some marked features from those comprised under that name. They showed no microscopic elements of cancer, affected but one organ in the body, and did not, except by irritation, undermine the general health.

Mr. John Wood exhibited a specimen of

OBLITERATED HERNIAL SAC.

The preparation, which had been removed from a patient in the dissecting-room of King's College Hospital, showed the sac of a femoral hernia occupied by a mass of omentum, which was in all parts united closely by old adhesions. It was an example of spontaneous cure, the sac being perfectly obliterated.

Mr. John Wood also brought before the Society a specimen showing

UNION OF SEVERAL VERTICAL VERTEBRÆ.

The preparation consisted of the cervical and dorsal spine of a child. Having been taken from a subject in the dissecting-room, the history of the symptoms during life was not obtainable.

"The specimen showed anchylosis on both sides between the occipital bone and the atlas, and between the axis and third cervical vertebra, the intervening atlo-axoid, and the other cervical joints remaining free.

"The coalescence between the occipital condyles and the lateral masses is perfect and symmetrical, with a smooth and tolerably even surface, free from irregularities. Between the anterior arch (which is normal), and the basilar process, is a smooth rounded foramen. The anterior root of the transverse process of the atlas is absent on both sides, and the tip smaller than normal. The remaining root is attached in its usual place. Between it and the jugular process there passes a bridge-like process of bone, smooth and rounded. Between the posterior arch and the margin of the foramen magnum there is a laminated coalescence, more strongly marked on the left side, and leaving an elongated interval in the centre, and on each side a round smooth opening of equal size, giving passage to the vertebral artery. The left lateral mass of the atlas projects more inwards, and the right more downwards and outwards, than normal.

"The coalescence between the bodies of the axis and the third vertebra has taken place only at the sides, where the anterior roots of the transverse processes are implanted, the junction being marked by a faint ridge and groove anteriorly, but posteriorly, on the right side, is a perfectly smooth surface. The centre is occupied by cartilage, with distinct laminæ for the secondary epiphyses of the bodies. The transverse processes are not united, but all four are remarkably like the normal processes of the axis, being small, depressed, pointed, thin at the end, and not presenting the groove superiorly for the

nerve. The arterial foramina look upward, outward, and backward, as in the axis.

"The articular processes and laminæ are entirely coalesced, without irregularities, presenting a smooth, unmarked surface in the spinal canal, and leaving a foramen on each side for the exit of the nerves. The spinous processes are free only at their terminal tubercles, of which the right one of the axis is displaced from the median line about a quarter of an inch—the left is in its normal position. The atlo-axoid articulations are covered with healthy cartilage, but are much altered in form, those of the atlas being convex antero-posteriorly, and much resemble the occipital condyles; those of the axis being correspondingly concave, and continued upwards on the sides of the odontoid process. The anterior surface of this process itself is very convex vertically. It tapers much to the point, and its neck is obliterated by the encroachment of the articular processes of the body, so that its whole appearance is pyramidal. There is marked lordosis of the whole cervical spine.

The following peculiarities strongly indicate that the origin of the deformity was intra-uterine:—

"1. The smooth and regular appearance of the coalesced parts, the absence of spiculæ and projections.

"2. The absence of the anterior roots of the transverse processes of the atlas.

"3. The symmetry of the foramen, between the anterior arch of the atlas and the basilar process, — pointing to a subsequent ossification (after birth) of the centre for the anterior arch.

"4. The resemblance between the transverse processes of the anchylosed axis and third vertebra,—a congenital assimilation in form and function.

"5. The presence of inter-vertebral fibro-cartilage between the centre of the bodies of the axis and third vertebra, and of their laminar epiphysical cartilages.

"6. The complete fusion of their neural arches, articular processes, and lateral parts of the bodies,—pointing to a congenital adhesion of the lateral primary ossific centres only, those for the bodies remaining distinct.

"7. The remarkable alteration in the atlo-axoid articulations, showing a very early adaptation for the altered mechanical conditions.

"8. The presence of lordosis to a much greater degree than is usual in curvatures resulting from disease after birth, and probably resulting, like the slight twist in the spinous process, of the axis from the position of the fœtus in utero, with the head thrown backwards.

"9. The laminar ossification of the posterior occipito-atlantal ligament has probably been a subsequent non-inflammatory ossification, resulting from a fixed position."—Mr. Wood.

Mr. Obré believed that a specimen, similar to that shown by Mr. Wood, was preserved in the museum of the Haslar Hospital.

Mr. Shaw stated, that a third was in that of the Middlesex Hospital.

At the request of the President, Mr. Shaw and Mr. Henry Gray were appointed to examine the specimen further, and report on the question as to whether the anchylosis was due to original malformation, or to the effects of disease.

Dr. Theophilus Thompson brought forward a specimen of

CANCER OF THE LUNG.

The patient, a man under care in the Brompton Hospital, had been ill for eighteen months before death. His earliest symptom had been rather profuse hæmoptysis, which had followed one month after a severe blow on the back. He was in the Hospital a fortnight before death, and during the whole of that time had brought up at least half-a-pint of blood daily. The increase of the bleeding on movement had precluded any careful physical examination, and it was to be regretted that no microscopic inspection of the matters expectorated had been made. At the autopsy a large mass of cancer was found in the right lung, and cancerous material was also infiltrated in the neighbouring tissue, and in many parts blocked up the vessels and smaller tubes.

Tuesday, March 4.

Dr. Peacock, Vice-President, in the Chair.

Mr. Hutchinson gave a report of his examination of a specimen, shown by Dr. Hillier at a former meeting, of

TUMOUR FROM THE BRAIN.

The tumour presented on section the discoloured, blotched appearance so well described by Mr. Paget as characterizing the myeloid growths. Its microscopic elements, however, differed considerably from those of the more common form of myeloid. Most of the cells seen were very long, and fibre forming, but containing in their centre a large oval nucleus, which bulged out from the side of the cell itself. A very large majority of the cells were mono-nucleated: some had two, a few three, and here and there, after much search, a poly-nucleated body might be found. These latter were four times the size of those seen in myeloid; their nuclei were also much larger. Most of the nuclei had a single large nucleolus.

Mr. Hutchinson also showed a specimen of

TUMOUR FROM THE BRAIN.

This specimen was of much interest in connexion with the preceding, which in some particulars it closely resembled. It had been obtained in the dissecting-room of St. Bartholomew's, from the brain of a well-nourished young woman, the cause of whose death was unknown. Mr. Hutchinson stated that he was indebted to the courtesy of his friend Mr. Savory for the opportunity of presenting it to the Society. It was about the size of a child's fist, and of rounded smooth exterior, being enveloped in all parts by a thin cellular membrane. Before removal it lay imbedded in a depression on the external surface of the right middle cerebral lobe. On lifting the brain, it rolled out by its own weight, having attachments only to the dura-mater. It appeared to be covered by pia-mater, and, at first sight, much resembled an additional cerebral lobe. By its side was a similar mass, of about one-sixth its size, but resembling it closely. The section presented an opaque, dead-white surface, with here and there an appearance as of fibres. It was not so glistening, nor yet so homogeneous, as brain-structure, nor did it, although easily broken down by pressure, yield any true juice. Under the microscope, it consisted mainly of elongated mono-nucleated cells; cellular tissue, free nuclei, and, in very small numbers, cells containing more than one nucleus being also seen. The cells were much smaller in size than those found in Dr. Hillier's specimen, and their nuclei also were much less. The poly-nucleated cells were very few, and larger than those of myeloid.

Mr. Hutchinson stated, that he felt much difficulty in classifying these tumours, but was inclined to believe, looking to all the conditions of their growth and structure, that they were more closely allied to the myeloid tumours than to true cancers.

Dr. Quain presented for Dr. Babington a specimen of

TUBERCLES IN THE LUNGS OF A PONY.

The animal had had a cough for at least nine months. The cough got better while the animal was doing some light work in the South of England, but, on returning to town some three months ago, the cough got worse. The animal became lame first in one hind leg, then in the other, and finally the jaws became rigid. These symptoms were attributed by Dr. Babington to rheumatism. About a week ago, the animal's breathing became very difficult and hurried, and death took place three days ago. The only organs found affected after death were the lungs. They were much congested, almost hepatized in some parts, and they were studded throughout with yellowish masses, in size from a grain of shot to a pea. They resembled, but were larger than, miliary tubercles in the human subject. Many contained nodules about the size of pin's-heads, of a bony hardness. Before the blow-pipe these swelled, and then dwindled away to a small portion, which, being heated, passed into pure lime. There were no cavities. Dr. Quain had examined the deposit with the microscope, and found it to consist of abortive cells, earthy, fatty, and granular particles, with the elements of the pulmonary texture—a specimen very clearly showing the seat of the deposit in the pulmonary cells.

MEDICAL SOCIETY OF LONDON.

SATURDAY, MARCH 1, 1856.

DR. SNOW, President, in the Chair.

Mr. Haynes Walton exhibited an instrument for breaking calculi, when, during lithotomy, they are too large to be extracted. He remarked that the mortality of lithotomy was in proportion to the size of the stone. That the removal of large calculi was a proceeding always most dangerous to the patient, and in many instances the extraction could not be accomplished, so that death was inevitable. The necessity, therefore, to break, or further reduce a stone of certain dimensions, was obvious, but the means of accomplishing it had not been found easy. He had learned from trials on the dead body, that the instrument usually kept by instrument-makers for this purpose, with the exception of the large lithotrite, were nearly, if not quite, useless, and he soon perceived that there was wanting an apparatus with which the stone could be readily seized and fixed, before the smashing power was applied. This he had, in conjunction with Messrs. Weiss, accomplished after much trouble, in an instrument that was in fact but a pair of common curved lithotomy forceps, stronger, larger, and better made than those in general use, to which which was affixed a rod that acted on the principle of the lithotrite, the construction and use of which may be thus described:—After the stone is grasped, the blades are secured on it by means of a bar and screw at the handles, in all respects like the arrangement of a carpenter's screw compasses. The rod is first passed through a collar on the bar, placed centrically and fixed by a thumbscrew, and afterwards through another aperture, (which works with a screw,) made in the projecting rivet of the blades. Then, by turning the handle of the rod, it is driven against the calculus. He pointed out that the large lithotrite possessed value, but it could not always be brought into play, and must necessarily be used when the bladder is empty of fluid.

Dr. Routh mentioned a case (by way of caution) of a lady in whom very serious symptoms, bordering upon mania, were produced by taking three doses of the extract of Ignatia amara, which, he said, was somewhat extensively used by some Medical Practitioners to remove constipation depending upon want of tone in the large intestines. The lady first took two half-grains successively without effect, and after an interval of three or four days she took 2 grains, which, in about an hour, produced the symptoms in question. The lady was pregnant, and the child appeared to be in convulsions. Labour, however, was not brought on, and the patient recovered.

Dr. Headland said, the extract contained the same alkaloids as the common nux vomica, and should be administered with the same caution. The result mentioned by Dr. Routh was probably due to cumulative action.

Dr. Willshire said, that Ignatia amara was used by an advertising quack in cases of epilepsy.

Dr. Thudichum having read a paper,

Dr. Routh, while concurring in the views and recommendations of the author, thought the cases of pneumonia which he had adduced as proving, by their cure, the efficacy of hæmospasia, were not very satisfactory, inasmuch as the patients were of an age when they would recover from the disease, whatever kind of treatment was adopted. In diseases of children, as in hydrocephalus, the cupping boot would probably be very useful, though some difficulty would be experienced in applying to a child so large a boot as that exhibited by the author. In those cases of pneumonia where anæmia was present, and the disease had reached the second stage, he thought neither bleeding nor hæmospasia would be beneficial. In capillary bronchitis, he had never known bleeding prove serviceable.

Dr. Richardson said, he had applied the boot on several occasions, and the longest time for which it could be borne was eight minutes. He explained how the principle of the boot might be made serviceable in producing local anæsthesia. Thus, if a portion of the arm were placed in the india-rubber case, the hand being left free, when the air was pumped out, and a tourniquet applied to the brachial artery, the hand would become blanched and insensible. There were, he thought, injuries of the brain in which repeated bleedings were required. In capillary bronchitis bleeding was absurd, and he doubted its efficacy in cases of pneumonia.

The President thought the contrivance of the boot very ingenious, producing the temporary ameliorating effect of bleeding, without any ultimate loss to the patient. Some medicines, like tartar emetic, acted somewhat similarly, by lowering the circulation and lessening the quantity of blood flowing through the lungs. He attached some importance to Dr. Richardson's suggestion respecting the production of insensibility in the way described. It was clear that a certain quantity of aerated blood was necessary for sensation.

Mr. Hird said, that in certain injuries of the cranium involving the dura-mater, and in fractures of the rib with injury to the pleura, he should prefer bleeding to hæmospasia.

Mr. Haynes Walton did not think it invariably necessary to abstract blood when the dura-mater was injured. He had seen many cases of fracture, in which the dura-mater was injured, recover without the loss of blood and without the presence of a symptom.

Mr. Hird had never seen the dura-mater injured without symptoms being present.

Mr. Canton thought that hæmospasia might be employed in most Sugical cases in which bleeding was now resorted to. In erysipelas it would probably be serviceable, but not without the combination of other modes of treatment tending to purification of the system.

The author having replied, the Society adjourned.

ANNIVERSARY MEETING.

SATURDAY, MARCH 8.

THE ORATION.

The Oration, on this occasion, was delivered by Dr. Richardson, who chose for his theme "The Vocation of the Medical Scholar."

The Orator commenced with some introductory remarks relating to the past year, and its general events, which were, he said, of a kind that would cause the year to stand out as a time-mark in history. In the course of the events thus occurring, Medicine had not been asleep; she had furnished her heroes and her historians abroad, her political and scientific labourers at home, and in all the phases of her destiny has never before stood fairer, or in greater promise, before the world. The institution of an order of Medical men for the sanitary supervision of the metropolis; the possibility that this plan might be extended to the whole kingdom; the prospect of a new and comprehensive measure of medical reform; the inauguration of the Royal Medical College,—these were all hopeful indications. The Medical Society, microcosm of the great society of the world, had also rung its changes; it had centralised its system of government for the better, it was to be hoped, though some might be allowed to doubt;—any way, it was still hale and hearty. In referring to the losses sustained by death, Dr. Richardson spoke of Mr. Copeland, Mr. Walsh, Mr. Harwood, Dr. Chambers, and Mr. Pilcher; and, regarding the last-named of these, paid the following tribute: "A warm and generous friend in our personal concerns; a staid, but liberal adviser in our councils; an earnest promoter of our scientific interests; a thorough representative of an English gentleman,—in all these traits stood George Pilcher ever among us, beloved of necessity by all." Dr. Richardson then passed to the subject proper of his address—"The Vocation of the Medical Scholar." In this task he discussed the true meaning of the word scholar; the labours of some of the leading scholars in medicine; the necessity of conjoining knowledge with wisdom; of keeping closely to observation; the fallacy of systems; the dangers of bare hypothetical assumptions; the relations of theory and practice; the difficult position of the scholar, as illustrated in the life of Harvey; the equality of natural manifestations; the fixidity of the laws of life; the folly of using mystical words; the eduction of leading laws in relation to disease; the reforms required in nosology; the reasons why medicine had not become a fixed science; the value of independent inquiry; the mischiefs of drawing hasty conclusions from insufficient data; the study of Medical literature; the alliance of the Medical scholar with the world; the hues and cries of quacks; Medical ethics, and the advancement and defence of truth, as the beginning, the midway, and the end of the scholar's vocation. These are the heads of some of the subjects dwelt upon in the

oration. We offer one or two passages at length, and nearly verbatim, by way of illustration.

EDUCTION OF GENERAL LAWS REGARDING DISEASES.

In our vocation as disease observers and disease curers, we should strive after great and leading laws; not such laws as we, in our ingenuity, can invent, but such as we, in our research, can show to have been written by Nature herself. I think I am not far wrong in making the general confession, that out of all our collection of details regarding diseases we have never yet eliminated so many as one great and fundamental law relating to them as a whole; I mean no such law as shall be said to run parallel with the physical law of gravitation. This deficiency arises not from any want of industry, or talent, or enthusiasm in the Medical world, nor yet from difficulties comparatively greater than those which are met with in other sciences, (for surely no problem was ever more abstruse than that of gravitation,) but because the studies of the scholar medical have rarely until of late been directed towards this line of research. Because it has been too common to use hypotheses as explanations of phenomena, to trust to empirical or accidental discoveries for progress, and in heaping together of details, to narrate them, as though they were intended to serve no ultimate end or object. Still further it has been a custom to split up great phenomena into an infinitude of parts; and there have been men, such as Cullen, who have positively gained great and favourable notoriety by dividing the elements of disease into as many possible verbal forms as there were symptoms springing out of elementary causes,—a pursuit than which none other could more decidedly give origin to weak and mistaken opinions, or lead more directly away from the construction of an exact science.

STUDY OF MEDICAL LITERATURE.

The study of medical literature is of the deepest interest to the medical scholar. Of one set of facts I am sure, that an immense amount of labour is lost, an untold measure of literary ground is re-traversed, an incredible degree of "old originality" is being held up to the admiring world, and all this because the literature of medicine is, comparatively speaking, unread and unknown. When the medical literature of the past is rooted out, it is generally either to serve the purpose of some captious critic burning to break the midnight slumbers for months of some self-satisfied new discoverer, by proving black upon white that the discovery is as old as the pyramids; or else to assist some pedantic author in making his book look learned, in which case the titles of the ancient folios in terrific foots make a most classic garnish and confer a truly active flavour. It is all very grand this; but literature has a far higher end and meaning. What is literature? Is it not man himself, in the most intense, the subtlest phases of his life? Do not his deepest thoughts conceive it, his firmest hands endorse it? Let the literature of an age be given, and the age itself is described. Literature is the undying man. It is the only exception to the rule, that whatever is born of time is the child of time, and is borne, and lives, and perishes like ourselves. But the literature of medicine, to be understood in all its variety and completeness, can never be understood by mere exhibitions in piecemeal; scraps upon scraps, and these often over and over again. Neither can it be fully comprehended by re-issues of ancient authors at occasional seasons, in modern literary dress. Take it to pieces, and what is it like? It is one massive volume composed of various essays on various subjects. The book does not want to be reprinted in parts, but to be analysed as a whole. It requires the winnowing machine of the critical reviewer. This analytical task lies strictly within the province of the medical scholar, and for the labour implied a phalanx of such scholars is now required. It would be their business neither to deal with special men nor books, but with the facts which should be worth retailing,—the origin of these facts, their cause, their influence, their real value. What is there new under the sun, in the medical world? that is the question.

MEDICAL ETHICS.

In the career of the Medical man there are, finally, many duties which relate to his bearing and disposition towards others of the same vocation. On this theme, involving a system which has been long known under the phrase "Medical ethics," I shall treat in a general sense only. The perfection of medical ethics is, indeed, I take it, embodied rather in one or two general and natural laws than in set formula wrought out in the closet by earnest men who have their own opinions. In all that has preceded I have tried to show that, in the scientific duties of the medical scholar, there are required a unity and simplicity of purpose, a willingness to throw off false impressions when required, and a desire to acknowledge every useful assistance that may be offered. In his social position, let the same feelings actuate and guide the scholar, and all will be well.

EPIDEMIOLOGICAL SOCIETY.

MONDAY, MARCH 3, 1856.

DR. BABINGTON, President, in the Chair.

DR. AYRES read a paper on

SOME POINTS IN THE PATHOLOGY OF EPIDEMIC CHOLERA.

After stating that he had no theory to support, the author went on to remark on some of the symptoms of this disease, as observed by him during the epidemics of 1848-9 and 1853-4. In relation to premonitory diarrhœa, he observed that the praiseworthy investigations of Dr. MacLaughlan, had led to his denial that collapse ever occurred without premonitory diarrhœa of some hours' or days' duration. After adverting to certain recorded cases in which collapse occurred without premonitory diarrhœa, and the intestines were found after death gorged with the rice-water evacuations, Dr. Ayres observed that in a practical point of view diarrhœa could not be correctly called premonitory unless of sufficient duration to allow time for the action of remedies; and he detailed several cases in which collapse supervened so suddenly as not to give sufficient time for the exhibition of remedial agents. With reference to the evacuations, the author stated that neither chemical nor microscopical examination had thrown the smallest light on the cause of the disease. He explained the formation of the larger cholera bodies described by Drs. Swan and Budd of Bristol, as one of the phases in the digestion of fats, and exhibited drawings of the cholera bodies of the rice-water evacuations, and the artificial cholera bodies, produced during the digestion of fat in a healthy animal. He also enumerated the microscopic objects discovered in specimens of rice-water evacuations from fifteen cases of cholera. Vogel and Heller had observed, that the addition of nitric acid to the distillate of rice-water evacuations, produced a red tint in the liquids, and Simon had noticed the production of the same colour by addition of nitric acid to the liquid motions in typhus. The author had, some years before, obtained the same roseate tint by the addition of this acid to the distillate of night soil. He repeated the experiment of Vogel and Heller, on cholera evacuations, with the same result, but being struck with the exact resemblance of the reaction of the distillates of cholera evacuations and night soil, he was led to ascertain whether fresh healthy fæces would yield the same results; and he found that such was the case in all minor degrees, thus proving that this peculiar reaction is not a pathological peculiarity of cholera, but a result of the putrefaction of fæcal matters. In reference to cramps, the author remarked, as a result of a somewhat extended experience, that this symptom was invariably absent in young children, and that the cramps were rarely severe before the age of puberty. He described certain peculiarities in the symptoms of collapse in children, as contrasted with those occurring in the same stage of the disease in adults. In relation to the cause and propagation of the disease, Dr. Ayres entered somewhat at large on the chief hypothesis on this part of the subject. He remarked somewhat severely on the conduct of the late Board of Health, for confounding the predisposing with the efficient cause of the disease, and for attributing to local causes, always present, the production of a disease which has only lately appeared among us, and at long intervals. He then proceeded to examine the hypothesis of Dr. Snow and Mr. Grove on the cause and propagation of the disease, raising serious objections to their opinions. Finally, in speaking of the treatment of the disease, the author stated that, among a very large number of cases of diarrhœa which came under his care during the epidemics of 1848-9 and 1853-4, he had only seen two or three cases in which the diarrhœa was uncontrollable by ordinary treatment, and then ran on into collapse. Considerable difference in relation to treatment was seen in the two epidemics; for while about two-

thirds of the collapse cases recovered in 1848-9 under a treatment consisting of small doses of calomel frequently repeated, with chalk and catechu mixture rendered stimulating by the addition of tincture of capsicum; in 1854 nearly all the collapsed patients died under that, and other modes of treatment.

Dr. Snow thought it was useless to inquire into the original cause of cholera. If the disease was communicable, the propagation might be regarded as the cause. Naturalists were content with describing and classifying plants and animals, without inquiring into their primitive cause. With regard to cholera evacuations, it was true that nothing specific had been found in them, but that was no proof that they did not contain the cholera poison. We knew by inoculation that the poison of small-pox lay in the matter of small-pox. So with chancre. Yet nothing specific could be found in these matters. Though the cholera poison could not be recognized, no doubt it had an organized structure of some kind. There was in cholera, as in other diseases, a period of incubation, and a little poison taken into the body at such a period multiplied; the poison consisting probably of minute cells having the power of reproduction. The particles might be separated to any extent, but not diluted *ad infinitum*, so as to be destroyed. Dr. Snow then defended his views respecting the propagation of cholera by water.

Dr. Camps thought Dr. Snow was "carrying it a little too far," in comparing the cholera cell or gem to a living being, as implied by his reference to the naturalists. The true cause of cholera, he believed, was yet to be discovered in certain telluric influences. Dr. Dundas Thompson had shown that there was a connexion between states of the atmosphere and the presence of cholera.

The author appeared to think that all possible conditions of the atmosphere must have occurred before the introduction of cholera; but this was by no means certain. The constitution of the atmosphere was no doubt the same as before, but no one could say what molecular changes might have taken place.

Dr. Greenhow contended that cholera was not, as generally supposed, a new disease in this country, and was not confined to the two or three well-known pestilential seasons. Long prior to 1831, a disease was common in London, having, according to the description given by writers of the period, all the characteristics of cholera, being variously designated as "griping in the guts," "plague in the guts," and the like. In ordinary seasons, too, cases of cholera not unfrequently occurred identical with those of pestilential periods. The cause of cholera, he believed, was to be found in some peculiar kind of decomposition in the elements constantly around us; those elements, however, might vary from year to year, and from century to century.

Mr. Hunt said, because a disease was communicable, it did not necessarily follow that it could be propagated only by contagion; there being some diseases (such as scabies,) which were at certain times communicated, while at others they appeared in an epidemic form.

The author then replied, and the Society adjourned.

BIOGRAPHICAL SKETCH OF M. ROUX.

The following sketch is an abridgment of the eloquent eulogium recently delivered before the Faculty of Medicine of Paris by M. Malgaigne:—

Philibert Joseph Roux was born at Auxerre, April 26, 1780. His habits in early life were somewhat idle and dissipated, and his father, a Surgeon in good practice, treated him with great severity. After a very limited education at the *Ecole Militaire* of the town, he was dispatched to the army, when fifteen years old, as an *Officier de Santé* of the third class. Candidates for the office of Army-Surgeons were not then scrutinized too closely, for although the decrees of the Republic caused fourteen armies to spring from the soil as it were, they were unable to create the necessary proportion of Surgeons. In eighteen months of war 600 had died either from exhaustion or under the fire of the enemy, and although the Convention, in order to meet so fearful a consumption, established *Ecoles de Santé* in 1794, which were to prepare Surgeons in three years, in the mean time all were taken that could be found, even lads of 15. Many of the soldiers themselves were scarcely older, and on they went all together, and would have thought little of danger or fatigue, had not privations proved greater than either. Roux, sent to the Military Hospital at Aix-la-Chapelle, received 200 francs per month: but as this was paid in *assignats* it did not always suffice even for bread; and great was the ingenuity employed by him and other officers to obtain extra rations of this. In 1796, however, the Military Surgeons received rations, together with a small pay, and henceforth were at least saved from the danger of dying of starvation. After 18 months of this rough kind of life, the treaty of Campo Formio was signed, and M. Roux returned home. To the last he looked back with the most pleasurable recollections to these young days of hardship and adventure; and decorated with the robe of the Professor and the laurels of the Institute, he was always proud of having worn the uniform of the soldier.

As his father would not keep him at home, Roux set out for Paris. He presented himself at the *concours* for admission to the *Val de Grâce*, then just formed, but entirely failed: and he had now to contrive to live while studying at the *Ecole de Médecine*, upon the 50 francs per month allowed him by his father. Little enough this: for, although inscriptions and examinations were not then paid for, food must be provided, dissections pursued, and admission to private courses of lectures secured. Led away by his necessities and the seductions of Paris, he resorted to the gaming-table, and lost his entire month's fortune at one throw; a loss he only ventured to communicate to his mother-in-law, who had always treated him with affectionate kindness, and for whom, in her old age, he retained the tenderest regard.

Unconnected with the new School of Medicine, a young man now began to reveal his powers, speedily surpassing the masters whose lecture theatres he had just left. Bichat, in 1798, commenced delivering lectures on anatomy that speedily attracted a crowded audience. Roux, introduced to his notice by a fellow-townsman, at once became one of his most enthusiastic followers, and a friendship sprang up between them that time only ripened. The Professor of 26, and the pupil of 18, after the lecture easily became companions; and while the master succeeded in infusing into his pupil a love of labour that never after became extinguished, the latter, a friend to relaxation after a day of toil, not unfrequently succeeded in persuading his teacher to suspend his incessant labours in search of amusement. When we remember that the scientific career of Bichat, commencing at 26, was unfortunately cut short only four years after, and when we think that his too continuous labours, his too sustained mental tension, and his days in the lecture-room prolonged into the nights, wore out his constitution, and precipitated the irreparable loss, may we not ask whether Roux's friendship did not at least serve to delay the fatal period, and whether we do not owe to him some gratitude for the masterpieces which jealous time allowed Bichat to complete? During these four years so well employed, he was never absent from Bichat for a single day, and he was at his bedside when he yielded up his last breath.

Of all those who aided him in his vast labours, the assistance of Roux was that most prized by Bichat. He chose him as the instructor of the younger students and as his assistant in the performance of experiments, and accepted the aid of his pen in the preparation of his lectures on General Anatomy, and in writing a portion of the Descriptive Anatomy. Trained in so excellent a school, he acquired a clear, firm, and precise style; and soon, seized with a noble emulation, he sought to apply to Surgery some of the ideas derived from his great master. Hence several of his publications in 1801 and 1802, and especially his Memoir on Uterine Polypi. In 1801 he carried off the first prize at the *Ecole Pratique*, in spite of numerous senior competitors; and in 1802, without leaving Bichat, he delivered a course of lectures on Operative Surgery, in which, following the example of Pinel, he endeavoured to found a new classification of Surgical diseases. In the same year, too, he proved himself a formidable though unsuccessful rival to Dupuytren, at the *concours* for the Assistant-Surgeoncy at the Hôtel-Dieu.

When Bichat died in 1802, great was the fear among the students whether his theatre, once so crowded, would be opened at all. Roux had been constantly engaged in his preparations for the *concours* until the beginning of September, and yet the lectures must commence at the end. In anatomy he was ready enough, but his knowledge of physiology was, to use his own words, limited to the amount requisite as a necessary introduction to the Medical study of man; and now he had to teach others without falling too much

below the incomparable master he was replacing. Determined exertion conquered all. The young Professor sacrificed one of every two nights for his own instruction, in order that he might become penetrated with the subject he was teaching—fortunate when the incessantly-renewed demands of the dissecting-rooms did not rob him of a supplementary night; for in those days in France, as with us long after, the subjects for anatomy had to be obtained surreptitiously from the cemeteries at night.

Roux's labours as a teacher did not prevent him continuing to write; and in 1803 he published his Treatise on Diseases of the Urinary Organs, and finished the Descriptive Anatomy left incomplete by Bichat. In spite of his recent devotion to physiology, it was always Surgery that attracted him most, although much was not yet to be expected from a young man of 23 without a Hospital, and who had not even received the solid practical instruction derivable from the *internat*. Following out for Surgery what Pinel had done for Medicine, classifications and nomenclatures became the order of the day, as seen in the works of Richeraud, Léveillé, and Delpech. Roux was one of the chief leaders in this movement, and, between 1802 and 1808, published classifications and tabular views of various subjects of Surgery; but at this latter period his appointment as Assistant-Surgeon to the Beaujon Hospital diverted his attention to other channels. The Hospital had only thirty beds devoted to Surgical cases; but he now assumed all the airs of the great practical Surgeon; and when, in 1809, he reprinted his nosographical fragments in the *Mélanges de Chirurgie*, he elaborately detailed the particulars of the three operations that had fallen to his lot at the Beaujon. The year after he obtained this he married the daughter of Boyer, but so limited were his means still, that he had to borrow money to make the marriage-presents. Boyer soon introduced him (1810) to *La Charité* as Assistant-Surgeon, where he found himself under skilful and prudent supervision, perhaps beneficially tempering his somewhat too-adventurous genius. The practical man took the place of the imaginative, and, from the day that Roux entered *La Charité*, he bade adieu to his physiological and other meditations, abandoned all further thoughts of a Surgical nosography, and comprehending that pathology must be founded on clinical observations, a treasure slow to amass, he fell back upon that which now seemed more within his reach, and undertook his Treatise on Operative Medicine.

In truth, a pressing reason stimulated him to this work, and suggested almost at the same time a similar treatise to that of Dupuytren. Sabatier died in 1811, and his chair became the subject of the celebrated *concours* between Roux and Dupuytren, in which Dupuytren again triumphed over his old rival. Still Roux's part in it was very brilliant. Resection fell to his lot, a question as yet but little discussed, and one which he was destined hereafter to illustrate and enlarge. At present, his experience regarding it was slight, for he had only performed resection of the head of the humerus, and the patient had died; but, by performing the various operations upon the subject, and skilfully grouping the scattered facts known to science, he succeeded in composing a highly interesting dissertation, which may be consulted even at the present day with advantage.

There was a degree of boldness in seeking to supersede Sabatier's "Médecine Opératoire," a second edition of which had recently appeared. The young aspirant did not, however, hesitate to declare, that that work was not up to the mark; its aged author not having been able to keep up with the progress of the art since his first edition was published. The first part appeared in 1813, and abounded in information on aneurisms, in which Sabatier's work was so defective. No more was, however, published, such numerous delays interrupting its preparation, that the early portions had grown old before the later were finished; and he had never the courage to recommence the task. Roux's strength, indeed, did not lie in didactic compositions, he feeling more at his ease in the preparation of limited memoirs, in which he could give full scope to his cases and reflections. His first memoir of this kind was upon union by the first intention after amputation of the thigh, read at the Institute in 1814; and the next was his account of a cure he had wrought upon himself.

To this he attached so much importance, and it really had so much influence on his future career, that we must not pass it by in silence. In the midst of all his successes which produced in him such an appearance of self-contentment, a secret grief poisoned all his joys, and distressed him the more inasmuch as he imparted what he felt to no one. From childhood he had suffered from a divergent strabismus of the right eye, and as physical defects give us far more concern than any others, this slight deformity, though in no wise impeding his success, was constantly in his thoughts. It was especially remarkable when he regarded very near objects, and consequently during operations. Repeatedly he had tried various expedients for remedying it, and always in vain, when reading one day what Buffon has written on strabismus, he was struck with the observation, that although very great inequality in the power of the two eyes is a cause of the deviation, yet, in order that they may act in concert, there is no need of a perfect equality of power, so that in pretty extended vision, this inequality may amount to a fourth without leading to a derangement of the ocular axes. The consequence deducible from this was evident. The eye that was defective in power must be perseveringly exercised. He now resumed efforts which had hitherto failed, with a determination to persevere. He read and wrote alternately, sometimes with the right eye alone, and sometimes with both eyes, choosing the night for these exercises, or moments in the day when he could perform them unobserved. Confusion of vision and excessive fatigue attended these trials, but he still persisted for whole hours. At the end of several weeks his perseverance was rewarded by great improvement, the eyes acting in accord, and vision acquiring greater distinctness and range. He deemed his cure radical and complete, and the sceptical smiles of those who observed him while descanting upon the occurrence, never raised a shadow of a doubt in his mind, and during forty years he had the pleasure of believing and repeating that he squinted no longer. This conviction, by restoring to him his repose of mind and confidence, exerted an important influence on his career, and from this period (1814) his progress as a great Surgeon became far more rapid.

Another circumstance at this period contributed to reveal his genius, viz., his visit to London. English Surgery, occupying but a secondary rank in the great days of the Académie de Chirurgie, had greatly raised its position since then. The lectures and example of John Hunter had formed an unrivalled school in London. The war between the two countries had allowed of our hearing rumours of this only at rare intervals, and great was our surprise to find the first English Surgeons who visited France, in 1814, displaying with such proud complacency their intimate conviction of their own superiority. Roux deemed it not amiss to seek these proud rivals on their own territory, to witness them at work, and to inform them of what we too had done without them. He, therefore, set off for London in August, 1814, and passed a whole month there. A month was, indeed, a short time to study a foreign school in, especially at that season of the year, and with an imperfect knowledge of the language. But the flattering reception his rising reputation secured to him, and the sympathy he inspired, converted later into durable friendships, smoothed the way as far as possible. All were anxious to inform him on the points he sought for information, or to receive what he had to offer in return.

(To be continued.)

MR. GRIFFIN'S APPEAL TO THE POOR-LAW OFFICERS.

St. Alban's.—At a meeting of the Medical Officers of the St. Alban's Union, held on the 10th instant, the following Resolutions were adopted:—"Resolved,—That Dr. West be requested to act as local Secretary and Treasurer." "That our thanks are especially due to Mr. Griffin for his manly and strenuous exertions in our behalf, and that we have full confidence in his wisdom and discretion, and will lend all the aid in our power to carry out the suggestions contained in his letter." "That in our opinion it is advisable that a general meeting be held in London, or anywhere more convenient, with as little delay as possible, for the purpose of petitioning Parliament for a redress of our numerous grievances." "That with regard to our payment, there ought to be some fixed principle on which it should be regulated, and not left (as at present) to the discretion of Local Boards." "That all appointments of Medical Officers should be per-

manent; not nominally, but in fact." "That it is essentially necessary there should be a revision and re-adjustment of the districts of the different Unions." "That we enter into a subscription of 5s. per quarter, half to be held for our local expenses, and the remainder forwarded to Mr. Griffin, to defray a small portion of his now somewhat heavy outlay." "That a copy of these Resolutions be forwarded to Mr. Griffin and the Medical Journals."

HENRY R. WEST, M.D., *Secretary.*

SALISBURY.—At a meeting held in this city, March 15, 1856, (Mr. Fox, of Broughton, in the Chair,) for the purpose of giving aid and support to the movement commenced by Mr. Griffin, of Weymouth, the following gentlemen were present, and represented their brethren of the respective Unions:—Thomas Anstie, Esq., Devizes, Devizes Union; R. Cream, Esq., Rushall, Pewsey Union; — Davis, Esq., Heytesbury, Warminster Union; L. O. Fox, Esq., Broughton, Alderbury Union; John Baker, Esq., Fordingbridge, Fordingbridge Union; Henry Tizard, Esq., Tisbury, Richard Charles Shettle, Esq., Tisbury Union; W. Cooke, Esq., Bower Chalk, Wilton Union; — Spears, Esq., Bower Chalk, Totton Union; John Winzar, Esq., Salisbury, Salisbury Union. The following propositions were proposed, and unanimously carried:—1. "That the thanks of this meeting be given to Richard Griffin, Esq., for his exertions on behalf of Union Medical Officers." 2. "That this meeting considers the present mode of payment objectionable, affording, as it does, facilities for the Guardians and Overseers to grant relief indiscriminately at the expense of the Medical Officers." 3. "That in the opinion of this meeting the payment to Medical Officers should be out of the Consolidated Fund entirely." 4. "That the list of cases classed under extra Medical fees be revised and extended." 5. "That in the opinion of this meeting, Union Medical Officers should be under the control of a Medical Board, (being a department of the Board of Health,) and not under the control of a Board of Guardians." 6. "That Mr. Fox and Mr. Winzar be requested to act as Secretaries, in carrying out the objects of this meeting." 7. "That the Secretaries be requested to apply to the Medical Officers of the neighbouring Unions for a contribution of 5s. per quarter, to defray the necessary expenses." 8. "That, for the efficient carrying out of these Resolutions, it is expedient that a petition from each Union of this and adjoining counties be immediately prepared, and presented to the House of Commons, and that the county and borough Members be earnestly requested to support its prayer." 9. "That this meeting regards the objects sought to be attained by it as not only of serious importance to the welfare of the whole Medical Profession, but also as one involving the interests of the public at large." A vote of thanks was given to the Chairman, after which the meeting separated.

JOHN WINZAR, *Honorary Secretary.*

CAMBRIDGE.—At a meeting of Poor-Law Medical Officers, held the 15th of March, 1856, present:—Messrs. Ransom and Bailey, of the Cambridge Union; Mr. Muriel, of the Ely Union; Messrs. Thurnall and Knox, of the Chesterton Union; Messrs. T. Prince and F. Prince, of the Linton Union. The following gentlemen were also present:—Dr. Fisher; the Downing Professor of Medicine; G. M. Humphrey, Esq., F.R.C.S., and J. Hammond, Esq., F.R.C.S., Surgeons to Addenbrooke's Hospital; — Bumpstead, Esq.; and — Temple, Esq. Communications were also received from Messrs. A. Ramsay, C. Newby, G. L. Girling, Robert Ellis, R. Faircloth, and F. C. Howard. A. W. Thurnall, Esq., was voted to the chair, and the following resolutions were proposed and carried unanimously:—1. "That the members of this meeting concur in the views promulgated by Mr. Griffin, in furtherance of the interests of the Union Surgeons, and will, to the best of their ability, endeavour to further those views." 2. "That they are of opinion that the salaries now paid to Union Surgeons afford a very inadequate remuneration, and that they should be revised and increased." 3. "That they are of opinion, that on account of the want of uniformity of payment at present existing, and for other reasons, it is highly desirable that the several districts should be examined by inspectors appointed by Government for that purpose." 4. "That two of the points having been already recommended by a Committee of the House of Commons in 1854, a petition praying the attention of the House to these recommendations, and embodying the views expressed in the foregoing resolutions, should be drawn up and signed by such members of the Medical Profession in this county as are willing to do so." 5. "That they are of opinion that the payment of Union Surgeons should be, in future, made directly and wholly by Government." 6. "That a report, as well as the thanks of the meeting, be conveyed to Mr. Griffin, for his exertions in behalf of the Poor-Law Medical Officers." 7. "That a vote of thanks be given to those gentlemen, not Union Medical Officers, who have attended on this occasion, to render their valuable services in furtherance of the objects in view." 8. "That A. W. Thurnall, Esq., be requested to act as Secretary and Treasurer, and to draw up the petition; and that he be authorized forthwith to receive five shillings per quarter from each Union Medical Officer, for the purpose of defraying the incidental expenses."

WHITECHAPEL.—At a meeting of the Medical Officers of the Whitechapel Union, held on March 17, 1856, to consider Mr. Griffin's Appeal to Union Medical Officers,—It was resolved unanimously,—1. "That an appeal should be made to Parliament for a revision and increase of the salaries of the Poor-Law Medical Officers, so as to secure a fair and proper remuneration to them." 2. "That such salaries be paid from the Consolidated Fund." 3. "That the Medical Officers be governed by, and responsible to, a Board of Medical men." 4. "That a subscription of five shillings quarterly be paid, in furtherance of Mr. Griffin's endeavours." 5. "That the thanks of this meeting be tendered to Mr. Griffin for his continued and disinterested exertions on behalf of the Union Medical Officers." 6. That a copy of these resolutions be forwarded to Mr. Griffin and to the Medical Journals."

HEALTH OF THE ARMY IN THE CRIMEA.

THE Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding his return of Sick, for the week ended the 23rd ultimo, states:—

The excellent health which the Army has enjoyed for some time past still continues, and no death from disease has occurred during the week. One or two deaths from accidents, however, took place out of Hospital. For an Army of between 42,000 and 43,000 men on Service in the Field to have lost no man by disease for a whole week is a remarkable circumstance; and when it is taken into consideration that only fourteen men have died in three weeks, little need be said about the character of the diseases that have been prevalent in camp; and as the ratio of sick to well is only four and a-quarter per cent., the sanitary condition of the Army may fairly be pronounced satisfactory.

Some of the Divisions of the Army have enjoyed unusually good health of late, for instance, the Highland Division at Kamera has only had one death for five weeks out of a strength of 4860 men.

In the Third Division in Camp no man has died for twenty-eight days, out of a strength of 6450.

And in the Light Division no death has occurred for a fortnight, out of a strength of 6460.

This favourable state of things does not apply to the Land Transport, in which there is still a considerable amount of sickness among the young lads who have been sent out of late. This corps has been recruited in the purlieus of London and other large towns, and a number of under-fed, dissipated boys has been picked up from that class of the community which fills the Fever Hospitals at home, and will continue to fill our Hospitals here for many months to come. Many of them from their youth are physically unfit for the duty required of them, and others from age will soon become so.

In point of comforts of every description, the Land Transport Corps is as well provided as any other part of the Army, and the men of the line who are attached to it enjoy good health, so that there is nothing in the duty or position of the corps to account for this amount of sickness in it at present.

TYPHUS FEVER.—Eight deaths from typhus occurred in the London Fever Hospital. The body of a man who had died of typhus in Cupland-street, Marylebone, was kept without burial for a fortnight, in consequence of the poverty of his relatives.

MEDICAL NEWS.

Royal College of Physicians.—At the quarterly meeting of the comitia majora, held on Monday, the 17th instant, the following gentlemen, having passed the necessary examinations for diploma, were admitted members of the College :—

Beale, Dr., Carey-street, Lincoln's-inn-fields.
Hewitt, Dr., Radnor-place, Hyde-park.
Jackson, Dr., late of Bengal Medical Staff.

Also,

Moffitt, Dr., R.N.,

was admitted an extra-licentiate.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 6, and Thursday, March 13, 1856 :—

Atkinson, John, Army.
Brook, Thomas George, Caston, Cambridgeshire.
Carpenter, John Wm., 54, Paradise-street, Lambeth.
Davies, Owen, Cardigan.
Edgeworth, Thomas Francis, Bristol.
Fowler, Joseph Thomas, Winterton, Lincoln.
Greenwood, Joseph Hamerton, Shanghai.
Lovell, Richard, Bluett's Head, Falmouth, Cornwall.
Murule, Charles Evans, Ely, Cambridgeshire.
Mustard, John, Woolwich.
Robinson, John, Egerton, Lancashire.
Sankey, Richard Henry H., Littlemore, Oxford.
Thorowgood, John Charles, Totteridge, Herts.
Wilson, Robert, Fivemile-town, Ireland.

DEATHS.

Evans.—March 5, at Norwich, in his 72nd year, Lewis Evans, M.D., Physician to the Forces, and a Peninsular Medallist of eight clasps. M.D. Edin., 1805; Physician to the Forces, H.P.; Consulting-Physician to the Norfolk and Norwich Hospital, and to the Lying-in Charity, Norfolk; late Physician to the Norfolk and Norwich Eye Infirmary.

Jones.—March 9, at Russell-square, Brighton, Jenkin Jones, Esq., M.D., R.N., in his 86th year. M.D. Glasgow, 1818; Honorary Life-Governor Royal Humane Society.

Bequests.—Sir Benjamin Fonseca Outram, R.N., K.C.B., has bequeathed to the Fistula Hospital, £100; Institution for the Widows of Medical Men, £100; Naval School for Boys, New-cross, £100; Naval School for Girls, Richmond, £100; Naval Benevolent Institution, £100; Distressed Governesses' Society, £100.—Miss Frances Crowe, of Pall-mall, £500 to the Charing-cross Hospital.

The University of Dublin has conferred the degree of Doctor of Medicine, *honoris causâ*, upon Dr. Andrew Smith.

The Samaritan Free Hospital.—This institution, established for the reception of poor women afflicted with diseases incidental to their sex, as also for children, etc., held yesterday the ninth annual general meeting in the board-room of the establishment, Orchard-street, Portman-square, the Rev. H. Alford, B.D., Minister of Quebec Chapel, in the chair. The report showed that during the past year nearly 9000 patients had availed themselves of the benefits of the institution. Of this number 183 had been attended at their own homes during their confinement, 114 assisted by loans of baby-linen, etc., while the Samaritan Fund had afforded relief to 778 in suitable and nourishing food during illness, 53 had been received as in-patients. All applicants became patients without letter or question. The committee had but 17 beds, but these were fairly appropriated among the most urgent cases. The balance-sheet showed a deficiency of £350, for the liquidation of which contributions were earnestly solicited.

The Medical Reform Bill and the Royal College of Physicians.—At a meeting of the Fellows of this College held on Monday last, it was agreed to present a Petition to the House of Commons in favour of the general principles of the Medical Reform Bill introduced by Mr. Headlam. The College, however, does not pledge itself to support the details of the measure.

Association of the General Medical Practitioners of Ireland.—The third annual meeting was held, March 17, in the Board-Room of the Apothecaries' Hall, W. J. Harrison, Esq., President, in the chair. The Report for the past year having been read, a resolution was passed condemnatory of the Medical Bill now before Parliament, as being calculated to deprive the General Practitioners of Ireland of their rank and privileges. It was also resolved to establish an annual prize for the best essay on some subject connected with Practical Medicine, competition to be restricted to members of the Association. Dr. Owens having been chosen President, and Dr. Nalty Vice-President, for the year ensuing, Dr. Leet was moved to the chair, when the thanks of the meeting were unanimously voted to Mr. Harrison for his dignified conduct as President during the past year, and for his zeal at all times in promoting the interests of the Profession.

The Rugeley Poisonings.—The Grand Jury have ignored the bill of indictment in the case of Walter Palmer. The post-master has been sentenced to one year's imprisonment, without hard labour.

The Dove Poisoning Case. — The Coroner's Jury, after an hour's deliberation, have brought in a verdict of wilful administration of strychnia to the wife.

Paupers in England and Wales.—A parliamentary return has been issued which shows that in 624 Unions the total number of paupers, in-door and out-door, in receipt of relief on the 1st of January, 1856, was 876,655; on the 1st of January, 1855, 850,453. The total number of adult able-bodied paupers (male and female), exclusive of vagrants, in receipt of relief in-door and out-door, was, on January 1, 1856, 152,174; on January 1, 1855, 144,500.

Health of the City.—On Tuesday, at a Court of the City Commissioners of Sewers, Dr. Letheby presented his weekly report, from which it appeared that the number of deaths during the week was 62. Of these 21 were children under five years of age; 14 were 70 years old and upwards; the aggregate age of these 14 was 1,119 years, giving an average of 80 years to each, and one had reached the advanced age of 104. These circumstances indicated unusually good conditions of life and health in the city. The deaths during the week had arisen principally from the vicissitudes of temperature, occasioned by the bleak winds which had prevailed. There had been 4 deaths from fever, 2 from diarrhœa, 2 from small-pox, 4 from scarlet fever, and 5 from consumption.

The Holborn Union Workhouse and the Powers of the Medical Officers of Health.—On Tuesday, at the meeting of the Board of Works of the Holborn District, Dr. Gibbon, the District Medical Officer, presented a Report on the Sanitary State of the Union Workhouse, in which he states :—"I found the Infirmary Wards Nos. 33 and 35, Ward No. 36, and the Nursery, crowded in a manner prejudicial to health; for, with 22 beds, it contained 18 women and 31 children, besides attendants—a number, 12 in excess of that sanctioned by the authorities. 320 cubic feet of air ought to be allowed to each inmate of the rooms; but I found that, without reckoning the attendants, this allowance was reduced to 241 cubic feet. As each individual inhales 266 cubic feet of air in the course of twenty-four hours, it is obvious that the space actually allowed is not sufficient for the preservation of health. To judge from the closeness and the offensive smells while some of the windows were open, I should say the air of the room was charged with noxious impurities. In the women's quarter the wards were low and ill-ventilated. In other respects the house was most satisfactory, and reflected great credit on the Managers and Officers. The food appeared to be of the best quality, and free from any noxious adulteration. The new portions of the building, occupied exclusively by males, were well ventilated; and in the Men's Infirmary 500 cubic feet of space were allowed to each individual." The Report having been read, Dr. Gibbon said, that he had the direction of the Board to inspect the Workhouse, and Dr. Simon, of the General Board of Health, had informed him, that workhouses were the principal "public buildings" which he had to inspect, and he had the power to make such an inspection under the 132nd Section of the Local Management Act. But on going before the Guardians he had been told by the Clerk to the Guardians, that the words "public buildings" in the Act did not refer to workhouses! Not having the sanction of the Guardians, he could not visit the wards at the best time to

test the air, which was about midnight, and the Master of the Workhouse declined to allow him to take the measurements of the wards without the sanction of the Guardians. Mr. Goldsworthy, a Guardian, defended the sanitary state of the workhouse, and invited members of the Board to go round the house any day they chose. [St. Pancras tactics again!] The ventilators, he said, had been stopped up by the poor persons as soon as they were put up. He moved a resolution, "That a copy of the Report be transmitted to the Guardians." Mr. Southee, of Ely-place, said, as a lawyer, he was of opinion, that the words "public buildings" mentioned in the Act of Parliament did bring the workhouse under the inspection of their Medical Officer, and he hoped the Guardians would throw no difficulties in the way, but consider that their duty was to promote the health and happiness of the inmates of the house. The resolution was adopted.

Kars.—From the Official Despatches respecting the fall of Kars, it appears that the corruption and peculation pervading every department of the army and its auxiliary services is the theme of nearly all the letters written during the intervals of war. *Ex pede Herculem.* An Apothecary at Pera was employed to supply the army with Medical stores. Dr. Sandwith reports to Colonel Williams:—"M. Della Sulla delivers the medicine at the retail price of the shops at Constantinople. No control, I am told, is exercised over him. His interest is to supply as much as possible; but quack nostrums, useless instruments, pots of pomatum, eau de Cologne, hair dye, obstetric instruments, and damaged leaves and bark constitute the bulk of the stores furnished. These again, under the auspices of Salih Bey, disappear in the most unaccountable manner; more are sent for, and thus a brisk trade goes on at the expense of the Government, and for the profit of M. Della Sulla and those Constantinople authorities whose protection he purchases." All the qualified Medical men in the army left after a few months' service.

The Paris correspondence of the *Independance Belge* alleges that the French Army in the East counts no less than 30,000 sick in the ambulances and Hospitals; all the cases are chiefly scorbutic and typhus.

The Late Dr. Warneford. — The Rev. Vaughan Thomas, B.D., has written for private circulation a Memoir of the late Rev. Dr. Warneford, who, by his munificent charities, has indissolubly associated his name with the Institutions of the town of Birmingham. From Mr. Thomas's work we extract the following instances relating to Dr. Warneford's donations to the Queen's College and the Queen's Hospital, Birmingham:—"*The Queen's College and Queen's Hospital, Birmingham*—That which secured the stability, and led to the present fame and permanent welfare of the College and the Hospital, was their adoption by Dr. Warneford; for as soon as he poured in the riches of his co-operative generosity, there was no longer any apprehension of failure, either in the means of their support, or in the success of their collegiate or charitable economy. *The Warneford Prize in Queen's College*, by which he wished that students engaged upon the facts and phenomena of anatomical and pathological science should be brought to perceive the evidence of Divine wisdom, power, and goodness, discoverable by manual, microscopic, or chemical agency, in the structure and organization of the human body. Neither was that his only object. Had he confined it to that, the compositions for his prize would have been no more or other than arguments *à finali causâ;* physico-theological conclusions, from the wise, wonderful, and merciful uses of the parts and particles of man's nature, for the demonstration of the existence and infinite wisdom, power, and goodness of a Divine Creator. But the founder of the Warneford Prize carried his purpose far beyond this: he wished it to be shown, that what reason might and ought to conclude as to the Divine nature and attributes from these natural evidences was in exact accordance with what the Scriptures have revealed and declared concerning them; and the successful results of these endeavours will be found in *the Warneford Prize Essays*, which, though occupied upon minute anatomical demonstration, and the development of uses and final causes (in which respect they resemble the arguments of Derham and Paley), are, moreover, christianized by those rays of revealed truth which have been made to fall upon the darker passages and pathways of God's wisdom, power, and goodness. The College and Hospital at length attracted the attention and procured the favour of Her Majesty the Queen. It was then, upon the petition of Dr. Warneford, and at his sole expense, that Her Majesty was graciously pleased to confer upon the College and Hospital a new style and title, raising them to higher rank and dignity, and increasing their efficiency and usefulness *by incorporation*, and afterwards *by a second or supplemental charter*. Hereupon, our philanthropist was seen to pour forth in more copious streams the riches of his bounty and the counsels of his piety and prudence. He then sought, by means of endowment, to give order, fixedness, and system to various collegiate offices and appointments; and after the boundaries of his plan had been extended and enlarged by *the second Charter*, with characteristic promptitude he also extended and enlarged the circumference of his purposes of good. He therefore, in conformity with what had been done in Oxford, and what Her Majesty had enabled him to do at Birmingham, endowed a Professorship of Pastoral Divinity, and thus made the extended powers of the supplemental Charter available for spiritual as well as secular purposes, for Divinity, for Jurisprudence, for Civil Engineering, and other sorts of knowledge useful for the business of life." The following is a list of Dr. Warneford's munificent donations, with the objects for which they were contributed:—

Date.	Amount.	Object of the Endowment.
1838	£1000	To found prizes for Essays by Medical Students.
1842	1000	Salary of the Chaplain of the Queen's Hospital.
1844	1750	To found four Scholarships in Medicine.
1844	1000	Salary of Warden, as Chaplain.
1845	1000	Salary of Warden, as Lecturer.
1846	1000	Salary of Medical Tutor.
1849	3000	Salary of Professor of Pastoral Divinity.
1851	1000	Salary of Resident Warden.
1851	500	Increased salary of Warden.
1851	1400	Increased salary of Professor of Pastoral Theology.
1852	2500	Increased salary of ditto.
1852	1000	To found four Theological Scholarships.
1852	6500	Increase of salary of Warden.
1852	2000	Salaries of Professors of Classical Literature, of Arts and Science.

Of these sums £11,650 have been expended on the College buildings, subject to a rent-charge of 4 per cent. in payment of salaries, scholarships, prizes, etc., in accordance with the trust-deeds, and £12,000 was invested by the late Dr. Warneford himself, in trust, in preference railway stock. In addition, Dr. Warneford has given £1000 towards the building funds of the Hospital; £500 towards the Fever wards; and £200 towards fitting up the Hospital Chapel and Dispensary; £500 towards the erection of the College Chapel, consecrated by the Bishop of the diocese; £1000 towards furniture, etc.; £150 towards the purchase of books, models, etc.; and £500 towards the Charter and Supplemental Charter, making a total of £29,500.

Medical Society of London.—List of Officers and Council of this Society elected on March 1, 1856:—*President*, W. D. Chowne, M.D. *Vice Presidents*, C. H. F. Routh, M.D.; W. Smiles, M.D.; H. P. Robarts, Esq.; T. Hunt, Esq. *Treasurer*, H. Hancock, Esq. *Librarian*, W. A. Harrison, Esq. *Secretaries in Ordinary*, E. Smith, M.D., LL.B.; C. H. Rogers Harrison, Esq. *Secretary for Foreign Correspondence*. T. Davidson, M.D. *Councillors*, J. Snow, M.D.; W. B. Ryan, M.B.; G. D. Gibb, M.D.; J. Bishop, Esq. F.R.S.; F. Hird, Esq.; W. Mackenzie, M.D.; J. M. Winn, M.D. A. Henry, M.D.; H. Smith, Esq.; S. Stedman, Esq.; J. S. Stocker, M.D.; V. de Méric, Esq.; J. Hogg, Esq.; R. P. Cotton, M.D.; S. Griffith, M.D.; H. W. Fuller, M.D.; J. Bird, M.D.; I. B. Brown, Esq.; P. Marshall, Esq.; G. Johnson, Esq. *Orator*, W. Adams, Esq.

Summary of Births, Deaths, and Marriages in Scotland, in 1855.—During 1855 there were registered in Scotland, births, 93,498; deaths, 62,154; marriages, 19,639: being at the rate of 1 birth for every 32; 1 death for every 48; 1 marriage for every 153, in the estimated population. Making allowance for a number of births not registered during the first month of the operation of the Act, the proportion of births will probably be found to be 321 for every 10,000 persons living, or 1 birth to every 31 persons. This proportion is below the rate of births in England, which

averages annually 332 for every 10,000, or 1 birth for every 30. The proportion of deaths was 207 for every 10,000 living, or 1 in 48. This is considerably below the mean proportion in England, which gives 228 for every 10,000 living, and even below last year's mortality in England, which was 226 for every 10,000. The usual striking difference of mortality is observed between the inhabitants of towns and country. In 33 registration districts, embracing all the larger towns, and containing nearly half the population, there were 37,703 deaths; while the remaining rural districts, with an equal population, yielded only 24,451 deaths. The natural increase of the population deduced from the excess of births over deaths is 31,344.

Oleum Aurantiorum in Gastralgia.—M. Hannon states that in several cases he found orange-peel oil the most efficacious remedy, and that when bismuth, opium, etc., have failed. He regards it quite as a specific, and gives from 6 to 10 drops twice in the morning, at two hours' interval.—*Buchner's Repert.* 1855. P. 401.

Mortality Notabilia.—The deaths registered in London rose from 1029 and 1082 in the two previous weeks to 1118 in the week that ended last Saturday. If the rate of mortality had been the same last week as it was, taking the average, in the corresponding weeks of the ten years 1846-55, it would have produced 1296 deaths, which is more by 178 than the number actually returned. These results show that the public health is comparatively good; though the cold weather has had some effect in raising the mortality. Other catarrhal complaints prevail at this time to an extent greater than can be discovered in the returns of deaths. Of the 1118 deaths 563 were those of males, and 555 of females. From diseases of the respiratory organs the deaths in the preceding week were 191; last week they were 223.

Births.—The births of 932 boys and 812 girls, 1744 children, were registered; average, 1582.

Meteorology.—The mean height of the barometer in the week was 29·965 in. The highest reading was 30·20 in. at the beginning of the week. The mean temperature was 36·3°, which is 4·6° lower than the average of the same week in 38 years (as determined by Mr. Glaisher). The mean daily temperature was below the average throughout the week, and on Saturday the defect was 8·4°. On that day the *highest* reading was only 38°; the *lowest* 27·9°, and the mean 33·1°. The *lowest* in the week was 26·5° on Wednesday. The mean dew-point temperature was 29·5°, and the difference between this and the mean temperature of the air was 6·8°. The mean temperature of the water of the Thames was 41·8°. On the last five days the wind blew from the east and north-east. On Thursday it blew, when strongest, with a pressure of 6 lbs. on the square foot. No rain. Horizontal movement of air, 925 miles; electricity, positive and weak.

Deaths in Public Institutions for the Week ending March 15:—

	Males.	Females.	Total.
Workhouses	65	71	136
Prisons	..	..	..
Military and Naval Asylums ..	6	..	6
General Hospitals	33	20	53
Hospitals for Special Diseases ..	10	5	15
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	3	..	3
Hospitals for Foreigners, etc. ..	..	1	1
Lunatic Asylums	5	8	13
Total	122	106	228

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	1	7	4	3	3
North	490,396	4	2	7	10	1	13
Central ..	393,256	2	3	6	6	3	5
East.....	485,522	4	10	7	16	3	18
South	616,635	3	8	5	11	4	6
Total..	2,362,236	13	24	32	47	14	45

Iodine in Erysipelas.—Mr. Nutting calls attention to the utility of applying to the inflamed surface, first, the tincture of iodine, and immediately after, the nitrate of silver; the conjoined use of these substances being far more useful than their separate employment. Mr. Moreland states that the ethereal tincture of iodine, (iodine 3½, sulphuric ether ℥i.,) freely applied by means of a pencil to and just beyond the inflamed part, is the best of all topical applications, considerably abridging the duration of the disease, and diminishing the severity of the constitutional symptoms.—*Boston Journal.*

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, March 15, 1856.*

Causes of Death.	In the Week ending Saturday, March 15, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 36·3						° 41·8
All Causes	1118	527	157	192	196	39	1177·8
Specified Causes	1109	525	157	192	196	39	1168·4
Diseases:—							
1. Zymotic Class	223	168	18	21	15	1	217·3
2. Dropsy, Cancer, and others of uncertain seat	44	4	6	14	18	2	50·8
3. Tubercular Class	198	64	70	57	7	..	211·3
4. Of Brain, Nerves, etc. ..	124	61	6	21	33	3	131·5
5. Of Heart, etc.	49	7	8	14	19	1	44·9
6. Of Respiratory Organs ..	223	108	20	36	51	8	249·5
7. Of Digestive Organs ..	53	19	9	12	11	2	63·3
8. Of Kidneys, etc.	20	4	6	4	5	1	15·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	11	1	6	3	1	..	7·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	1	2	1	1	..	8·0
11. Of Skin, etc.	5	3	..	..	2	..	2·6
12. Malformations	1	1	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	33	32	1	..	..	..	28·6
14. Atrophy	30	22	..	1	7	..	28·4
15. Age	44	..	..	..	23	21	54·5
16. Sudden	9	7	..	1	1	..	12·8
17. Violence, Privation, etc...	37	23	5	7	2	..	38·8
Causes not specified.. ..	9	2	..	..	..	..	9·4

BOOKS RECEIVED.

Epidemics considered with Relation to their Common Nature, and to Climate and Civilisation. By Southwood Smith, M.D. Edinburgh. Edmonston and Douglas. 1856.

Cell-Therapeutics By William Addison, M.D., F.R.S. London: Churchill. 1856.

Charleston Medical Journal and Review. January. 1856.

Sixteenth Annual Report of the Registrar-General. Abstracts of 1853. London: 1856.

The Adulteration of Food and Drinks. By Dr. William Alexander. London: Longman and Co. 1856.

Dr. John Struthers on the Study of Medicine.

The Introductory Address at Surgeons' Hall, Session 1855-56. Edinburgh: Sutherland and Knox. 1856.

A Short Essay upon the Qualifications, Duties, and Remuneration of Union Medical Officers. By Robert Knaggs. London: Churchill. 1856.

TO CORRESPONDENTS.

Mr. B. Travers, jun.—The papers have been received, and will appear in due course.

Dr. Rigby's paper on Inflammation of the Os Uteri will be published next week.

Mr. Borham's paper is in the hands of the printer.

A Hater of Humbug and Quackery directs our attention to an advertisement which has appeared periodically in the Leeds papers on the subject of the new volume of Braithwaite's Retrospect, and which seems to our Correspondent to overstep somewhat the boundaries of Professional modesty.

A Correspondent, writing from Birmingham, brings under our notice a lithographed circular emanating from a Mr. Morris Banks, chemist, of that town. The advertiser therein informs the public that he has taken into partnership his son, who has devoted nine years to Medical study in the schools and hospitals of Birmingham, London, and Edinburgh, and who is a graduate in Medicine, and a Licentiate of the London Society of Apothecaries. In the same advertisement, Morris Banks and Son, Apothecaries, Wholesale and Retail Druggists, solicit the patronage of their friends, informing them, *inter alia*, that they import and refine olive, lamp, and other oils, and that they sell horse, sheep, and cattle medicines of every description.

A. B., Dulford.—A.B. has no doubt a right to dispose of his practice and to introduce a successor, but we cannot subscribe to the doctrine, that, because a man wishes to retire from business for private reasons, he has any right to expect that either the Guardians of an Union, or his private patients, must necessarily accept the services of the gentleman who purchases the practice. The latter, in fact, only buys his *chance* of succeeding; but there is no possible way of binding the patients to transfer their confidence to him, nor is there any law to prevent any other Medical man living in the neighbourhood from picking up whatever practice may fall in his way from the retirement of a brother practitioner. If it were otherwise, the Medical Profession would be a mere trade, and the patients would be transferred like cattle from one purchaser to another. But we make these remarks in a general sense, not knowing anything of the peculiar circumstances, if there be any, of the case laid before us.

Jn.—The multiplication of small suburban medical societies is good in a social and ethical, rather than in a Professional point of view. Men meet, and know each other; asperities are rubbed off, geniality promoted, and the tendency to "sharp practice" and to "poaching" is restrained. It is difficult to recommend a Society, but we feel bound to uphold the Medical Society of London.

A General Practitioner writes thus—"A patient of mine was on a visit at the house of a friend, where he met Mr. ——, Assistant-Surgeon to the —— Hospital, who was in attendance upon his host. He was ill and under my care, and this was well known to Mr. ——, whom he never consulted nor spoke to about his illness; till one day Mr. —— finds him alone in the breakfast-room, tells him that he has heard of his case, that he has felt a *strong interest* in it, that he 'had known of several similar cases,' and that he had met with 'unusual success' in the treatment. So that day they had a long discussion, and my patient was much pleased with Mr. ——'s spontaneous kindness. After the patient's return home he received another visit from Mr. ——, who was full of 'interest in his case' as before, and prescribed something, and proposed to meet me, whom he praised to my patient as a very rising practitioner. I am informed of this by my patient, who is a gentleman of perfect honour, and he is a little astonished at my flat refusal to meet Mr. ——, and at my exposure of the cant of feeling a strong interest;' 'having lately met with cases exactly similar, and all the other dodges which your pushing gentry resort to when they try to allure patients. I am not afraid of losing a patient by plain speech; but whether so or not, I will not condescend to meet one of these prowling, cat-like fellows, who try stealthily to inveigle the softer members of either sex."

C. H.—We cannot advise on the law of landlord and tenant. Remember the adage about the man who is his own lawyer.

H., London Hospital.—If your friend derives any gratification from the idea that he possibly had an ape or an ass for his ancestor, let him enjoy it undisturbed. Study Owen's Lectures, and leave him to dream over the "Vestiges," if so he pleases. The young ladies will find him all the more interesting.

Henry Lever.—We do not possess a copy of John Mason Good's Study of Medicine, and must refer you to the library of your nearest Medical School, or to that of the Royal College of Surgeons.

P.—The person is a well-known "madman at large"—an *habitué* of Piccadilly. We know nothing of the virtues of the Magic Lamp, but believe that it is possible to asphyxiate with it.

The Rugeley Poisonings.—We have received a note from Mr. John Smith, the Solicitor for the prisoner William Palmer, calling attention to one of our articles, in which we represented the deceased Walter Palmer as "a man of mild temperament." Mr. Smith brings evidence to show that Walter Palmer, in the opinion of some Medical gentlemen, was, on the contrary, very excitable, and his conduct sometimes amounted to delirium. We give Mr. Smith the benefit of the explanation, which, however, does not materially affect the merits of the case. It will be seen, that the Grand Jury have ignored the bill in the case of Walter Palmer.

H. F. N.—The operation of the Bill will not be retrospective, and we have no doubt that, under the circumstances mentioned, the Classical Examination would be considered superfluous.

The questions which we have received from Gravesend and Fenuy Stratford, on some points connected with Poor Law Medical Officers, will be answered next week, as soon as we have received authentic information upon the subjects referred to.

Omega.—You are clearly entitled to twelve months' notice, the facts being as you state them; and we should advise the bringing of an action accordingly.

Erratum.—In our last, the word "*Chemistry*" was inadvertently omitted in the paragraph as to the vacant Professorship of that subject in Queen's College, Galway.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; The Geological Society; Mr. Edmund Lynch; Mr. John Smith; H. F. N.; Dr. Barnes; Mr. W. B. Kesteven; A Hater of Humbug and Quackery; Mr. I. B. Brown; Dr. Edward Smith; A.B.; An Extraordinary Member of the Royal Medical Society of Edinburgh; Dr. Shearman; Mr. B. Travers, jun.; Mr. Yearsley; Dr. Otho Vitalis; Dr. Henry R. West; Mr. J. Z. Laurence; Chirurgus; X. Y. Z.; Mr. W. Sands Cox; Mr. Hall, Sheffield; Dr. Mantell, London Hospital; Mr. Wood, King's College; Mr. Birkett; A. B. C.; Dr. Oldham; Mr. Winzar; The Royal College of Physicians; A. B.; Mr. J. H. Gramshaw; Mr. R. Griffin; Mr. S. Newham; Mr. H. W. Ley; Dr. Moriarty; Omega; Dr. Payne; Dr. Odling; Mr. W. Burton; Alpha; Chir.; Dr. Weber.

APPOINTMENTS FOR THE WEEK.

MARCH.	Miscellaneous Register.	Society Meetings.
22. Saturday	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	Medical Society of London, 8 p.m.: Dr. Routh "On Fæcal Fermentation as a cause of Disease." Royal Botanic Society, 3¾ p.m.
24. Monday	Operations at the Metropolitan Free Hospital, 2 p.m.	
25. Tuesday	Operations at Guy's, 1 p.m.	Royal Medical and Chirurgical Society, 8½ p.m. Zoological Society, 9 p.m. Meteorological Society, 7 p.m.
26. Wednesday	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.	Hunterian Society, 8 p.m.: Dr. Habershon "On Some Cases of Suppuration in the Abdominal Parietes communicating with the Colon." Microscopical Society, 8 p.m. Royal Society of Literature, 4½ p.m.
27. Thursday	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	
28. Friday	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	Western Medical and Surgical Society, 8 p.m.: Mr. Barnes "On a Case of Perforating Ulcer of the Rectum."

ORIGINAL LECTURES.

LECTURES ON EPILEPSY.

DELIVERED AT

Westminster Hospital.

By CHARLES BLAND RADCLIFFE, M.D., L.R.C.P.
Assistant-Physician to, and Lecturer on Materia Medica at, the Westminster Hospital.

Lecture I.

I propose to relate a few cases of epilepsy for the purpose of showing that this disorder must be treated upon very different principles to those which are usually adopted; but before doing this I will endeavour to show that there need be no uncertainty either as to the nature of epilepsy or as to the principles upon which epilepsy ought to be treated. In these preliminary remarks I will speak in succession upon the general features of the epileptic, upon the signs of the approaching paroxysm, upon the paroxysm, upon the immediate consequences of the paroxysm, upon the pathology of the disease, and upon the treatment.

The General Features of the Epileptic.

An epileptic will often say, "I am quite well, if I could only get over these fits," and others are ready enough to echo the saying; but both he and they are sadly deceived.

In an ordinary case, there is a want of animation in the countenance, which is shown in many ways, and among others by frequent yawning, or by the readiness with which the features assume the flushed and jaded expression which precedes yawning.

Very generally there is a dilated and sluggish condition of the pupil, which is quite incompatible with any kind of mental activity, and, in keeping with this, the senses generally are found to be more or less dull, the imagination more or less heavy, the memory more or less treacherous, and the spirits more or less gloomy. Very generally, also, there is a want of self-control, so that depressing circumstances are allowed to be unusually depressing, and exciting circumstances unusually exciting.

The hand, as a rule, is cold and clammy, and the pulse is scarcely ever otherwise than weak and slow. In all probability the patient will complain of cold feet, and of feeling habitually chilly.

These are the principal general features of the epileptic as they are seen in a young person who has not yet fallen completely under the influence of the disease. They are vague and negative, but there are none more positive. There may or there may not be various symptoms of dyspepsia; there may or there may not be the signs of scrofula, of syphilis, or of mercurial abuse; but none of these signs or symptoms are in any way characteristic.

In the case of children, fidgettiness is often met with in place of listlessness and want of spirits, and in other respects the general features of the epileptic are found to interblend with the general features of the hysterical or choreal patient.

In confirmed cases these general features are so marked as to be altogether unmistakeable. Not only are the pupils dilated, but the under eyelids and the lips have become swollen and coarse. The countenance, moreover, has generally acquired a dark and often sinister expression, which appears to depend in part upon an habitually bloodshot condition of the skin. At any rate this bloodshot condition is rarely absent, and where it is most marked, as about the forehead and eyelids, it is often accompanied by numerous spots of ecchymosis of about the size of a pin's head. The features have now become coarse and fixed, and any expression which remains in them is stupid rather than jaded. The senses are duller than ever, the imagination heavier, the memory more treacherous; but there is rarely so much moodiness and depression as at first, for the patient has now lost a great deal of that fine susceptibility of feeling which is necessary to enable any one to be miserable about anything.

This change for the worse is particularly marked after the fit. After the fit, indeed, the senses may be so blunted, and the mind so clouded and confused, that the features of the epileptic may become confounded with those of the demented person. Or symptoms of mental aberration may not unfrequently take the place of the symptoms of dementia, and the general features of the epileptic may merge into those of the maniac. The fits, also, may recur so frequently that the mind may never clear up in the interval, and thus the features of the epileptic may never cease to be confounded with the features of the demented person or the maniac.

The Signs of the Approaching Paroxysms.

These signs are very variable. The patient himself will generally say that the fit takes him altogether by surprise. And certainly the signs of its approach are not generally those which are likely to arrest his attention. They also vary much in the same person.

Very frequently the patient will say, that he feels unusually "shaky" before a fit, and that nothing will then warm him, or keep him warm. Sometimes he will confess to frequent shudderings; sometimes he will complain of cramps and tinglings in his limbs. Often he is unusually fidgetty, or irritable, or moody.

Later still, he will perhaps say that he experiences certain vague and indefinable sensations, very varying in their character, and which, when least definable, are known under the term "aura." In other cases they are more defined. In one patient of ours, the fit is invariably preceded by an intense feeling of hunger; in another, a little blue imp perches upon the table, and mopes and mocks at him, until he loses his consciousness; in a third, a guitar seems to be grated roughly close by the ear. But these signs are of little value, for they are only perceptible to the patient, and only to the patient after he has ceased to be able to bestir himself.

Last of all, there is a sign which is very difficult to catch, and this is the death-like pallor which overspreads the countenance immediately before the fall. M. Trousseau called attention to this sign in a recent lecture at the *Hôtel Dieu*, (*L'Union Médicale*, 28 Avril, 1855,) as one which is diagnostic of epilepsy, and since this time we have seen it in several instances. M. Trousseau says, "*il est un signe qui se produit au moment de la chute, et qui n'est imitable pour personne, c'est la pâleur très prononcée, cadaverique, qui couvre pour un instant la face de l'épileptique; nous ne la voyons pas, parceque nous arrivons toujours trop tard, alors que la face est déjà d'un rouge très prononcé.*"

The Paroxysm.

The paroxysm is very variable in its character, and especially in the manner of its onset.

In the slightest form the patient pauses suddenly in the midst of anything he may happen to be doing or saying at the time, his countenance loses its colour, his features become fixed and confused, he experiences a momentary feeling of absence or giddiness, and then he is himself again. His memory has kept no record of this sad passage in his history, and he would know nothing about it if it escaped the notice of others. Or in addition to these symptoms, a lurid flush may succeed to the paleness of the countenance, the veins of the neck and temples may become more defined than they ought to be, and there may be spasmodic twitchings in the neck and hands and elsewhere.

In other and more marked cases, the patient utters a cry or scream of surprise, and sinks to the ground as if dead, or he sinks so suddenly as to have no time for crying or screaming. For a moment he lies motionless, and then he is seized with violent tetanoid convulsions. These convulsions invariably affect one side of the body more than the other, but no single muscle is allowed to escape. They drag the mouth and eyes forcibly towards the side which is most affected, and twist the head as forcibly away from this side; they push forwards the tongue and clench the teeth upon it; they stiffen the limbs until it is more easy to break than to bend them; they hold the walls of the chest and abdomen in a suffocative grasp, and put an end to all proper respiration; and in some instances they cause the bladder, the intestines, and the seminal vesicles to expel their contents. These convulsions are always violent, and sometimes their violence is sufficient to bite off a large portion of the tongue, or to break

the teeth, or to dislocate a limb. At first, also, it seems as if they would never cease, but afterwards they are separated by intervals which grow wider as the paroxysm draws to an end.

The corpse-like paleness which overspreads the countenance at the instant of the fall gives place in a moment to a dull red flush, which rapidly deepens into blue lividity, and as the colour deepens, the face and neck become frightfully bloated, and the hissing, struggling sounds of suffocation are heard in the throat. In a word, the horrors of suffocation are added to the horrors of convulsion, for the spasm of the walls of the chest and abdomen has put an end to all proper respiration. Sometimes, however, these superadded horrors are absent, and the face retains throughout the ghastly paleness which it had at the commencement.

When the fit is at its height a quantity of frothy saliva is usually blown and puffed from the mouth, and not unfrequently this froth is tinged with blood escaping from a bitten tongue.

The eyelids are sometimes closed, but when they are not, as often happens, the half-ghastly glare of the distorted and projected eye, with its pupil dilated to the utmost and its brow drawn into a savage scowl, by far out-horrors the most horrible feature of that horrible face, though that face is bloodshot, bloated, writhing, and fuming at the mouth with bloody foam.

All this while the hands and feet are usually pale and cool, and the perspiration which generally bedews them is cold and clammy. Except the head and neck, indeed, the whole body is cooler than natural, and the head and neck appear to be warmer than the rest of the body, simply because the veins are more distended with blood.

The other and less obvious features of the paroxysms are in keeping with these.

When the fit is at its height, the heart is sometimes found to palpitate tumultuously, and sometimes there is a marked throbbing at the root of the neck; but, as might be expected from the asphyxial symptoms, it is more or less difficult to find any pulse at the wrist, and this difficulty increases as the paroxysm progresses.

All consciousness is happily suspended from the first, and the most powerful stimulants fail to make any impression upon the dormant faculties. The water which may be poured upon the face causes no blinking in the opened and staring eyes; and the fire, upon which the patient may have fallen, may char his flesh without causing a single pang.

After continuing for two or three minutes, which seem hours rather than moments, the convulsions suddenly cease, and the patient is left lying with all his muscles unstrung, like a person who is dead drunk, or who has been struck down by apoplexy. The respiration, no longer restrained by the suffocative spasm which held it in, resumes its play with a deep inspiration, and then continues with loud and stertorous breathings; and as the lungs resume their natural action, the veins of the head and neck become unloaded, the colour and pulse return, the signs of coma gradually change into those of sleep, and last of all the patient wakes to an obscured and troubled consciousness. His first feelings are those of fatigue; his first words are expressive of suffering. "*Je suis brise*," Calmeil tells us, were the first words of the recovering epileptic at the Salpêtrière and Charenton. The time during which the patient lies after a fit before awaking is very variable, but it is rarely more than half-an-hour, and often not more than two or three minutes.

This is the usual course of the fit, but not the invariable course. Frequently, the attempts at rallying are very imperfect, and fit after fit may occur for a long time without any interval of waking, and occasionally all rallying may be prevented by death.

The Consequences of the Paroxysm.

After waking there are generally some symptoms of re-action in the circulation; but these are neither considerable nor prolonged. They may be enough to give a dull flush to the cheek, and to quicken and fill the pulse a little, but not more. Usually the patient is headachy and exhausted, listless and confused, moody and irritable, until a night's rest has intervened to restore the balance to the shaken nervous system, and then he is himself again. The countenance tells plainly of the past fit, even though it may present none of those numerous and minute dots of ecchymosis about the eyelids and upon the forehead which are such unequivocal signs of a severe attack of epilepsy.

As time goes on, the mental faculties recover more and more imperfectly and more and more tardily, and at last their habitual state may be one of pitiful fatuity, from which no single ray of the divine principle beams forth. Or the moodiness and irritability which follow the attack may become more and more marked, until at length they constitute downright attacks of fierce and unmanageable mania. Or symptoms of paralysis may remain for a longer or shorter time after the attack. Or death may happen in the fit or immediately afterwards. The natural tendency of epilepsy is assuredly towards dementia, and dementia itself is the final doom of the epileptic, if his disorder be unchecked and life prolonged sufficiently; and this equally, whether symptoms of mania have been manifested or not, but at the same time it is possible for an epileptic to have many fits and live many years, without ever losing the powers which are necessary to render him an agreeable and serviceable member of society. If death happens, it happens most generally from exhaustion in the period of prostration immediately following the paroxysm.

The Pathology of Epilepsy.

In order to arrive at correct notions upon this subject it is necessary to examine carefully the condition of the vascular, nervous, and muscular systems in the epileptic, and to consider the nature of the causes which are concerned in inducing the malady.

1. *The Condition of the Vascular System in Epilepsy.*

The cool and clammy hand of the epileptic, which is scarcely ever warm,—the habitually cold feet,—the pale and sallow, or the dark and venous complexion, which is never relieved by the true blush of health, are facts which appear to show that the circulation is very wanting in vigour; and this inference is fully borne out by the pulse, which is rarely otherwise than weak and slow. True plethora, as it is seen in the butcher, is never met with, and true fever is equally foreign to the malady. There are, it is true, frequent fluctuations in the circulation, and the pulse is readily disturbed by the ordinary causes of excitement or depression; but, as a rule, the depression is far below all healthy bounds, and the excitement is exceedingly small. Epilepsy, indeed, is essentially a feverless malady.

Before the fit, if there is any change at all, the skin is paler and duskier, and the pulse feebler than usual. On the eve of the fit a death-like pallor overspreads the countenance, which can only be explained on the supposition that syncope is impending. In the fit the state of the circulation is one which evidently verges very closely upon asphyxia. And thus the only conclusion which can be drawn from the state of the circulation before the fit, on the eve of the fit, and in the fit, appears to be that this state is one of unusual depression. Nor is there any evidence of a contrary character in the background.

The head may become very warm during the progress of the paroxysm, but this is no proof of increased action in the circulation of the blood in the part. On the contrary, the bloated condition, and the venous colour, is a sufficient proof that the increasing temperature is due, not to the injection of fresh blood into the arteries, but to the retention of old blood in the veins. The silent pulse at the wrist allows no other conclusion.

Nor is the palpitation of the heart, or the throbbing which occasionally occurs at the root of the neck during the height of the convulsion, a proof that the circulation is at all excited. There is no doubt that the heart may palpitate violently, and yet propel little blood into the vessels; and that it does so in the present instance, is proved by the empty state of the pulse at the wrist. The throbbing in the neck, on the other hand, may be due to cardiac regurgitation; for at the time of its occurrence, the degree of asphyxia is so great, that the blood must have accumulated upon the right side of the heart, to an extent which is sufficient to separate the curtains of the tricuspid valve, and so make the cavity of the ventricle continuous with the cavity of the auricle, and of the venous trunks leading into it. Or it may be due, as was suggested by my brother, to a convulsive action in the coats of the vessels, similar to that which has seized upon the bladder, the intestine, and the seminal vesicles. Under any circumstances it cannot be due to increased arterial injection, for the state of

the pulse at the wrist, and the prevailing state of asphyxia, render such an idea unsupposable.

After the convulsion, there may be some inconsiderable and transitory excitement of the circulation; but, when this excitement makes its appearance, the convulsion has ceased, and if the convulsion returns, the excitement has first departed.

It would appear, therefore, that during the fit the circulating powers are depressed in an extreme degree, and that in the height of the paroxysm there is no proper circulation at all. It is not necessary that we should speculate upon the causes of this depression and suspension, but, we may say in passing, that it appears to be due chiefly to the asphyxia consequent upon general spasms in the walls of the chest and abdomen, and that the late tracheotomic experiments upon epileptics do not prove the contrary. This would appear, because it is very questionable whether the larynx can be effectually closed except in very young children, and because epileptics do not exhibit, when coming out of the fit, the hooping inspiration which ought to follow relaxation of laryngeal spasm. Suffocative aphony—ὡς ἐν πνιγλ ἀφωνιη—is no proof of such spasm, for the want of breath which causes this aphony, might arise from immobility of the walls of the chest, as well as from laryngeal strangulation. After the fit there may be a partial paralytic closure of the larynx, such as there is in some cases of apoplexy; but this is quite another question.

But what, we may ask, has depression of the circulation to do with epileptic convulsions? Has it anything to do with them? The question is by no means simple; but in answer to it we may cite first of all an experiment by Sir Astley Cooper, which would seem to have been devised purposely for its solution. "I tied," writes Sir Astley, "the carotid arteries of a rabbit. Respiration was somewhat quickened, and the heart's action increased; but no other effect was produced. In five minutes, the vertebral arteries were compressed with the thumbs; the trachea being completely excluded. Respiration almost directly stopped; convulsive struggles succeeded; the animal lost its consciousness, and appeared dead. The pressure was removed, and it recovered with a convulsive inspiration. It laid upon its side, making violent convulsive efforts; breathed laboriously; and its heart beat rapidly. In two hours it had recovered; but its respiration was laborious. The vertebrals were compressed a second time. Respiration stopped; then succeeded convulsive struggles, loss of motion, and apparent death. When let loose, its natural function returned, with a loud inspiration, and with breathing excessively laboured. In four hours it was moving about, and ate some greens. In five hours, the vertebral arteries were compressed a third time, and with the same effect. In seven hours, it was cleaning its face with its paws. In nine hours, the vertebral arteries were compressed for the fourth time; and with the same effect upon the respiration. After thirteen hours it was lively. In twenty-four hours, the vertebral arteries were compressed for the fifth time, and the result was the same; namely, suspended respiration, convulsions, loss of motion and consciousness. On the removal of pressure, violent and laborious respiration ensued; and afterwards the breathing became very quick. After forty-eight hours, for the sixth time the compression was applied with the same effect."

We may infer, then, that convulsion has something to do with a depressed state of the circulation; for here we have an experiment which seems to show,—explain it how we will,—that convulsion is caused by cutting off the supply of blood from the great nervous centres.

We may also argue in favour of this conclusion, from the converse proposition; for there seems to be little doubt that epileptic convulsions are banished for the time by active inflammation or fever. Several cases in point are on record, and two have fallen under our own notice. In one of these a gentleman, the subject of daily fits, was relieved from these fits during the continuance of the inflammatory symptoms, consequent upon a severe fracture of the arm inflicted during a fit; in the other case, a young gentleman, a confirmed epileptic, had no fits during a sharp attack of rheumatic fever. In both cases the fits returned when the inflammatory or febrile symptoms subsided.

But, we may ask again, how is it that the convulsions cease when the circulation is at the very lowest ebb, if they are connected in any way with want of blood? This is a difficulty, no doubt, but it by no means proves that the convulsions are not connected with want of blood.

In the experiment above related it is obvious that the convulsions would never have occurred if the nerves had not been intact; for without this the muscles could not sympathize with the changes in the nervous centres, whatever these may be, which are concerned in causing contraction. If the nerves going to the muscles had been divided, no convulsions would have followed the compression of the vertebrals. The same result would also follow if the nerves had ceased to be conductors from any other cause. Have, then, the nerves ceased to be conductors at the time the convulsions of epilepsy come to an end? At this time they have certainly ceased to convey the mandates of the will and the impressions of sense; but have they also ceased to transmit those, as it were, coarser changes which are concerned in involuntary muscular action? Now we know that the irritability of a nerve is dependent upon the supply of blood to it, and that this irritability is annihilated where this supply sinks below a certain point. If the circulation in the hand be suspended by immersing it in iced water, the sense of touch and the control over the muscles, as well as the capability of producing reflex movements in these muscles, are partially or wholly destroyed. If the principal vessel of a limb be tied a similar result ensues. Facts such as these show that a certain amount of blood is necessary to enable the nerves to discharge their office as conductors between the centre and the circumference; and hence the question naturally arises whether the nerves receive enough blood to enable them to act as conductors when the convulsions of epilepsy come to an end; for certainly the circulation at this time is well nigh reduced to as low an ebb as it is in the hand which has been immersed in iced water, or in the limb whose principal vessel has been tied.

There is nothing, then, in the fact that the convulsions of epilepsy cease at the time when the circulation is at its lowest ebb, to contradict the impression which arises out of the whole history of the vascular system in epilepsy, which impression is, that the convulsions and other symptoms of the epileptic paroxysm are connected, not with plethora or fever, but with a state of circulation which verges very closely upon syncope and asphyxia.

A COURSE OF
LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE VII.

TALIPES EQUINUS CONCLUDED—TALIPES EQUINO-VARUS AND EQUINO-VALGUS.

Division of plantar fascia.—In the last lecture I explained to you that, in some cases of talipes equinus, the longitudinal arch of the foot becomes much contracted, so as to produce a shortening of the foot, and a deep concavity in its sole. This is frequently produced in its worst form by the weight of the body being thrown upon the toes, as in the case represented in Fig. 20, and becomes a permanent condition, in consequence of contraction of the plantar fascia, and of the short flexor muscles and ligamentary structures in the sole of the foot. For the removal of this contraction it is necessary to make a free division of the plantar fascia; and the ordinary practice at the Orthopædic Hospital is to perform this operation at the same time that the tendo-Achillis is divided, and subsequently to elongate the foot by direct pressure downwards, applied on the convexity of the arch or dorsum of the foot

through a soft pad, held in position by the transverse strap of the Scarpa's shoe (Fig. 25, f.) In severe cases, this is sometimes assisted by having a transverse joint made in the sole of the Scarpa's shoe, and a cog-wheel joint arranged externally, so that an upward pressure may also be applied. Practically, this will be found to be the most tedious, troublesome, and painful part of the treatment in severe cases, for long-continued pressure is not easily borne on tho dorsum of the foot. Looking to what appeared to be the cause of these difficulties, it appeared to me, that while this practice might still be continued in slight cases, it was desirable to make this part of the treatment a separate stage in severe cases, and one which should be completed before the division of the tendo-Achillis. I proposed to apply the mechanical extending force only to the anterior part of the sole of the foot, and in so doing to make use of the contracted state of the tendo-Achillis as a means of fixing the posterior extremity of the arch of the foot. In this method, the fulcrum must be placed exactly over the anterior surface of the ankle-joint, by means of the oblique heel-strap of the Scarpa's shoe (Fig. 25, e.), beneath which a soft pad should be placed, if that instrument be used. Pressure can be borne much better in this position than on the dorsum of the foot, and the arch is elongated, or, as it were unfolded, much more quickly and in a more satisfactory way. The first severe adult case in which I had an opportunity of trying this method, was a very severe case of congenital varus, with contraction of the plantar fascia and shortening of the foot to an extreme degree, in a patient, aged 26, Mr. B., on whom I operated on May 29, 1854. Casts of this case I now exhibit to you, but I shall again have more especially to refer to them when treating of congenital varus in the adult.

The instrument I employed is one which I consider to be far superior to the Scarpa's shoe in the treatment of severe cases of varus in the adult, or after childhood, and is also applicable for cases of severe contraction of the plantar fascia, especially in the adult. I shall describe this apparatus when speaking of talipes varus.

Division of the plantar fascia is, in some comparatively rare cases, the only operation required, the deformity of the foot being unaccompanied by any contraction of the tendo-Achillis. In such cases, which may be either congenital or non-congenital, the feet are short and very much arched; the prominence of the instep amounts to a deformity, and a deep contraction in the sole of the foot is readily detected. Sometimes, however, it is the inner and lateral band of the fascia which is chiefly contracted, and the foot has an inverted form, —a pigeon-toed appearance,—differing from varus in that the sole of the foot is more or less applied to the ground, and also in the absence of the distinct muscular contractions, and consequent displacement of bones, which constitute the essence of the latter deformity.

The pathology of these cases appears to me to be obscure, especially as it is uncertain whether they are produced by any active muscular contraction. Their treatment is often tedious and troublesome, but you will succeed in curing the deformity by a steady perseverance in the use of the Scarpa's shoe, after a free division of the plantar fascia, which may be extended to the subjacent muscles, according to the situation and severity of the contraction.

Severe contractions of the toes have already been described as frequently co-existing with talipes equinus, and sometimes even giving rise to the more serious inconveniences which accompany this latter deformity, as in the case from which Fig. 20 was taken. I have described to you the different directions in which the toes become contracted according to the cause producing the deformity, and the use which has been made of the foot. You would probably suppose, that separate operations are necessary for the removal of these contractions, but this is very rarely the case. The division of the tendo-Achillis, and the restoration of the foot to its rectangular position with the leg, exert a most important influence in removing these contractions, by relieving the stretching and tension to which the anterior muscles are subjected by the elevation of the os calcis, and which evidently is the first cause of the extended position of the toes. We find, therefore, that, with the assistance of pads and straps exerting a slight pressure on the toes, after division of the tendo-Achillis, their contracted condition can be overcome during the time occupied in restoring the feet to its natural form. In some severe cases of long standing, the division either of the flexor or extensor tendons, or of both, may become necessary.

Occasionally you will meet with cases in which all the toes are contracted, with or without contraction of the plantar fascia, but with only very slight contraction of the tendo-Achillis; not more than the right-angled contraction previously adverted to. This condition gives rise to very considerable inconvenience; the irritation produced by boots or shoes on the prominent parts of the toes, seriously interferes with walking exercise, and the treatment necessary is somewhat peculiar. If you divide the extensor tendons in front of the ankle-joint—a method which is preferable to making five divisions at the toes, and which you may easily perform by one puncture, between the extensor pollicis and extensor communis, passing the knife first inwards and then outwards, of course avoiding the anterior tibial tendon and artery—you will succeed in curing the deformity for a time, but it will probably return. Few Surgeons would sanction the division of the tendo-Achillis for this condition; but in practice we find it absolutely necessary for the permanent cure of the case, when the foot cannot be flexed beyond a right-angle, and therefore I advise you to adopt it, either with or without the division of the extensor tendons, according to circumstances. In slighter cases, however, it may not be necessary. I have now under my care a young gentleman aged 12, in whom all the toes of both feet were thus contracted, together with the plantar fascia to a slight extent, but with very slight contraction of the Achilles-tendons. The feet could be flexed in this case beyond the right angle, but not to their full extent, and his stride was therefore limited;—be careful when ascertaining the length of the stride that both feet are placed parallel with each other, and without any lateral deviation of the toes which would destroy the direct flexion of the ankle-joint. The inconvenience suffered from this condition was enough to induce his parents to desire effectual treatment for its removal. I divided the extensor tendons in both feet, in front of the ankle-joints, and also the plantar fascia, assisted by Mr. Burton and Mr. King of Blackheath; and, under all the circumstances, decided upon not interfering with the Achilles-tendons. The case has progressed very favourably, and I am endeavouring to obtain the slight elongation of the Achilles-tendons necessary, by special muscular exercises.

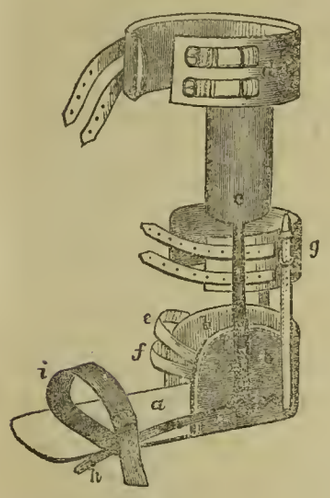
Thus, you perceive, that the operative treatment of talipes equinus must vary according to the degree of deformity, and according to the complications which may happen to exist. I will now proceed to describe to you the mechanical treatment necessary to complete the cure. That it is necessary the after-treatment should be most carefully conducted by the aid of mechanical appliances, I shall assume to be an established fact, based on scientific investigation and practical experience; although the contrary opinion may still be held and publicly taught by the learned Edinburgh Professor, Mr. Syme, who, after dividing the tendo-Achillis, even in paralytic cases, allows the patient to walk on the second or third day. How can any Surgeon imagine, that the reparative process in the divided tendon is sufficiently advanced on the second or third day to admit of exercise of the joint being resumed with advantage? Yet, Mr. Syme observes, in his clinical observations on talipes equinus—which cannot be said to abound in information with respect to the deformity, or even to show an accurate knowledge of its pathology, that, after the operation, "the bandage will be kept on for forty-eight hours, when no further treatment will be required, as the use of the limb in walking will be sufficient to bring the foot into its natural form,"—and he relates several cases in illustration of this practice. However, I have, in the first lecture, adverted to the very serious results which I have seen follow this proceeding; such as non-union of the tendon, or an extremely weak and elongated condition of the tendon, rendering the foot much less useful to the patient than before, and hopelessly incurable. I need not, therefore, further allude to this subject.

MECHANICAL TREATMENT OF TALIPES EQUINUS.

Mechanical extension should be commenced on the third day in infants, and also in persons of more advanced age, provided that the nutrition of the leg is uninterrupted; but in paralytic cases not till two or three days later. By that time the cutaneous puncture will be healed, though this should not regulate

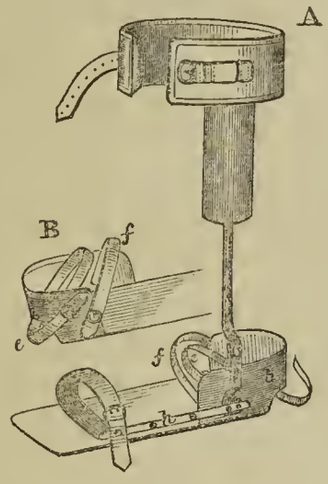
the practice so much as the probable activity of the reparative process. The foot should be bandaged and placed in a Scarpa's shoe, having a joint moving in the direction of flexion and extension, corresponding to the ankle-joint, and regulated by a cog-wheel and screw. If any lateral inclination exists, a second cog-wheel joint, moving in the direction of inversion and eversion should be added (Fig. 25). This modification, I believe, was first adopted by Mr. Tamplin, and the form of boot now in use at the Orthopædic Hospital is that represented (Fig. 25); but I have found several modifications represented in Fig. 26, of practical utility, and therefore employ this form of apparatus.

Fig. 25.



Scarpa's shoe now used at the Orthopædic Hospital.

Fig. 26.



Scarpa's shoo as modified by Mr. Adams.

Fig. 25.—*a*. Sole formed of iron, covered with leather. *b. b*. Heel plate attached to *a*. *c*. Perpendicular bar, with a padded side plate fixed to its upper part, to diffuse pressure when the foot is everted. *d*. Circular strap, containing a semicircular steel plate in its posterior half, which resists the action of the flexion and extension cog-wheel *k*, and holds the perpendicular steel in its fixed relation to the leg. *e. f*. Straps by which the heel is held firmly in the shoe. *g*. Circular strap fastened above the ankle, and connected to the heel-plate by two straps, to assist in holding the heel firmly down. *h*. Horizontal steel spring fixed to the heel-plate. *i* Strap which passes round the anterior part of the foot and draws it outwards towards the horizontal spring, *h*. *k*. Cog-wheel by which the flexion and extension movements of the foot from the ankle-joint are commanded. l. Cog-wheel, by which inversion and eversion of the foot are to some extent commanded

Fig. 26.—A. and B. The parts modified are lettered to correspond with Fig. 25. The circular ankle-strap, *g*, is dispensed with as useless. *b*. The heel plate is much diminished in size, to avoid pressure in lateral movement. *c*. This heel-strap has its power greatly increased by passing directly backwards through an aperture in the heel-plate and sole, instead of transversely across the front of the large heel-plate, as in Fig. 25. The aperture is also useful, in enabling you to ascertain whether the heel is in its place. *h*. A straight bar is substituted for a spring; it acts as well, and is less in the way.

Rate of extension.—By means of this apparatus the foot may be gradually brought into its natural position. The rate at which it is desirable to accomplish this, should be regulated by the activity of the reparative process in the divided tendon; but practically it is often limited by the ligamentous rigidity of the articulation. In well-nourished infants, the full length required in the divided tendo-Achillis should, according to my observation, be obtained in a fortnight if practicable; in a well-nourished leg in the adult, it should be obtained in from three to four weeks; but in atrophied paralytic limbs it should not be obtained in less than from six to eight weeks.

The *object*, I think, is not so much to elongate or stretch the new material uniting the divided extremities of the tendon, as generally supposed; but rather to regulate the length of new material, or, as it may be called, the new tendon, while we have the opportunity of so doing; and the rate at which this is to be accomplished, must have reference to the activity of the reparative process, and to the length of new tendon required.

This important part of the process must therefore be left to the judgment of the Surgeon, in cases in which there is but little resistance from the adapted shortening of ligaments; but if this exists, as in some cases of equinus of long standing in the adult and in severe congenital varus, it will not be possible to proceed at the desired rate, and it may even become necessary to divide the tendon a second time, before the required length be obtained.

In the mechanical treatment of talipes equinus, care should be taken to carry the foot beyond the right angle with the leg, in fact it should be carried to the angle natural to the period of life at which the operation is undertaken. When one foot only is affected, this may be ascertained by comparison with the healthy foot.

Disposition to valgus.—In some of these cases, towards the end of treatment, a disposition to turn outwards is observed in the foot, which would therefore assume the position of talipes valgus. This, I think, most frequently depends upon the flat form of the sole of the Scarpa's shoe, and the length of time the treatment of these cases has generally occupied. In other words, I regard it as an effect of the long-retained position imposed by the mechanical treatment adopted. It may, perhaps, occasionally result from a disposition to muscular contraction. The tendons of the peronei muscles become tense, and Mr. Tamplin advises their division, but I have found this condition yield to passive exercises, and a little altered adaptation of the Scarpa's shoe. It existed in the very tedious case represented in figure No. 23, and yielded to the above treatment in the most satisfactory way.

Passive exercises during extension.—During the latter part of the period occupied by the mechanical extension, when this is tedious from the amount of ligamentous resistance, passive exercises should be employed, not only with the view of preventing the stiffness of the joint which is always produced by long-retained position, and which may even result in another kind of deformity as above alluded to; but of preserving the muscular and other structures in a healthy condition, and to some extent assisting in the restoration of the natural form of the part. The movements required in cases of equinus, are flexion and extension of the foot, which in children I direct the parents to do for a quarter of an hour or more, twice a day. The period at which this should be commenced must depend upon the condition of the foot. When much resistance has to be overcome, I am not an advocate for intermitting the mechanical extension employed. In the cure of severe contractions, the good seems to be done by constantly applied, and well regulated, mechanical extension. I would therefore delay the passive exercises, until the case is advancing towards a cure. In severe cases motion is always attended with more or less pain, which in children appears to be referred to the neighbourhood of the tendon, or around the ankle-joint, but in adults is always referred to the anterior part of the ankle-joint. This may, perhaps, depend upon the edges of the articular surfaces of the bones—which I have explained to you, become more or less denuded of their articular cartilage in the adult—coming into contact with each other. In a little time, however, and by cautiously regulating the exercises, this completely disappears, and the functions of the joint are restored.

Use of foot to commence.—When all the deformity has been removed, and the reparative process in the divided tendon appears to be sufficiently perfect, the patient may begin to use the foot in walking; and then it is the invariable practice at the Orthopædic Hospital to support the ankle-joint, by attaching one or two side-irons to the boot, having each a joint, when two are used, corresponding to the ankle-joint, and connected above by a narrow semicircular steel plate, which rests against the calf of the leg, and the extremities of which are connected by a strap passing across the front of the leg, which is thus encircled. I am not, however, in the habit of using this support where all the muscles retain their power, unless a relaxed condition of the ligaments of the ankle-joint and foot should exist, or there should be an inclination to any lateral deviation in the foot. In the case figured in woodcut No. 20, the lady began to walk, wearing only ordinary boots, but in the case figured No. 23, a light, double steel support was necessary. Where paralysis of the anterior muscles exists, these supports are always necessary, to prevent the foot falling beyond a right angle with the leg, and for this purpose a stop-joint at the ankle must be used. This is also generally employed in all cases for some months, with the object of preventing re-contraction; but I use a free joint, and rely upon exercise for this purpose. If this be attended to, there will be no fear of re-contraction.

To be continued.]

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

NOTES ON SURGICAL PRACTICE IN THE CRIMEA.

By W. H. FLOWER,

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Of the vast amount of valuable information that must already have been accumulated by the Surgeons engaged in the battle-fields and Hospitals of the East, but little has yet been recorded for the benefit of the rest of the Profession. I have, therefore, ventured to put together a few observations on some points in military practice, more with the view of calling the attention of those who may yet have opportunities for their further elucidation, than with the hope of throwing any light on them myself; for my personal experience extended, unfortunately, only through that period of the campaign, the now oft-repeated sufferings and calamities of which, shared alike by officers and men, rendered scientific investigation next to impossible, although it included the vast opportunity for Surgical observation afforded by the ever-memorable fields of Alma, Balaklava, and Inkermann.

Amputation in Gunshot injuries.—With regard to treatment, all cases of severe injuries of the extremities resolve themselves into those in which it is necessary to sacrifice the limb in order to preserve the life of the patient, or those in which an attempt may be made to save it, and amputation, the so-called opprobrium of Surgery, avoided. In deciding upon which of these courses should be adopted in any particular case, besides the important question of the actual condition of the part, into the consideration of which I have no occasion to enter now, as it is one in which we act on the general principles of Surgery, as taught in all schools and works upon the subject, and which, together with the age, previous health, and constitution of the patient, is almost the only circumstance that need influence us in civil practice, another and almost equally important element to be taken into consideration where we have to do with wounded soldiers in a campaign, is the means at our disposal for the future treatment of the case; and hence arises the very frequent necessity of condemning limbs which, under more favourable circumstances, might have been saved. This was particularly the case at the period of the campaign in the Crimea to which I have above referred, where, owing to the peculiarities of our military position, the wounded could not be treated near the scene of action, but had to be transported over rough roads, in jolting araba wagons, or on the backs of mules, for six or seven miles, placed on board ship; then, after a sea-voyage of two or three days, disembarked and carried up to the Hospital at Scutari; thus one of the most essential requirements in the treatment of compound fractures, absolute quiet for the part, was in all cases wanting. Moreover, the proper Surgical appliances, on which a successful cure will, in a great measure, depend, were most deficient; for, though it will now scarcely be believed, there was not at that time with the army a single apparatus for the treatment of fracture, except short, straight, deal splints, and long splints for the thigh, in the proportion of two or three to each regiment; no bent splints for the arm, or iron back splints for the leg, or even the old-fashioned fracture boards, to say nothing of starch, gutta-percha, or pasteboard; and, again, the long exposure to cold and damp, together with feeding on innutritious and often insufficient diet, had, in a great measure, deprived the system of the men of that stamina which is necessary to enable it to undergo the long and exhausting process a compound fracture must pass through before union of the bones takes place, and the cure is accomplished. Taking all these circumstances into consideration, and bearing in mind the fact recognized by all writers on Military Surgery, and, as far as we can learn at present, confirmed by the experience of the present war, that, as a general rule, primary amputations are proportionally more successful among soldiers in a campaign than among the patients of a Civil Hospital, I have now no hesitation in saying, that, at all events at the commencement of the war, the Medical officers of our army, many of whom had had but little opportunity for previous military experience, relying on the ordinary rules of practice as observed and taught in the Hospitals at home, made too many attempts to save limbs, or postpone operations, an error which was often fatal to life; for, under the circumstances mentioned above, I feel convinced that immediate amputation was almost the only chance of safety for a patient with a severe compound fracture of the lower extremity; an idea to which a Surgeon educated for, and accustomed to civil practice, has some difficulty in reconciling himself, as it seems rather a retrograde step in the healing art; but I think that any one who has seen the melancholy results of the cases which we sent down to Scutari without amputation, so many of which terminated fatally, whether they underwent a secondary operation or not, will, if ever he is placed in a position similar to that of the autumn of 1854, remember and act upon the old saying quoted by Pott, "That it is better for a man to live with three limbs than die with four."

During the past summer the case was fortunately different; the wounded could be treated in camp, with proper beds, surgical appliances, and diet, and under those comparatively favourable circumstances conservative Surgery could justly be called into operation. For the same reason, such operations as the excision of joints were, at the early periods of the war, almost inadmissible, though now practised with so much success.

That amputations, when necessary, should be primary, or immediate, that is, performed before inflammatory action has set in, seems to be generally admitted now by all scientific Surgeons, and further experience is constantly tending to confirm the truth of this axiom. One of the most recent statistical tables on this subject is contained in the lately-published Report of the Glasgow Infirmary, in which the cases were mostly the results of lacerated and contused wounds, very similar in many respects to gunshot wounds; here, out of 197 primary amputations, there were 61 deaths, or 1 in 3·23; and out of 264 secondary, 116 deaths, or 1 in 2·27. In the Table of Waterloo operations given by Guthrie, there are, primary amputations, 146 with 32 deaths, or 1 in 4·56; secondary, 228 with 84 deaths, or 1 in 2·71. I merely give these as examples, (as we have numerous similar tables, most of them having the same tendency,) to show that sufficient attention is not generally paid to the fact, that though they may give the comparative mortality, we can form from them but a slight approximation to the relative expediency of the two operations in any given case, in calculating which, from simple statements such as these, many authors have overlooked a serious source of fallacy, which, when corrected, will throw the balance greatly in favour of the primary operations; for, in the first place, all the worst, and many almost hopeless cases, are included among those selected for operation in the first instance, while the more favourable ones are reserved for the chance of saving the limb; and again, of these latter cases, there are many which terminate fatally without a secondary operation, and are hence not taken into account in the statistical tables, but which should all be thrown into the scale of deaths from secondary amputations, in order to give a correct estimate of the comparative safety of amputating immediately, or delaying to do so in hopes of saving the limb, which is always the real question at issue in a case of severe gunshot fracture; for I suppose that no one seeing the inevitable necessity of an operation would now postpone it with the intention of performing it after suppuration has set in. As an example of the application of this fallacy, Mr. Rutherford Alcock's experience, as given in his "Notes on the Medical History of the British Legion in Spain," has been quoted in some of our most popular works on Surgery as unfavourable to primary amputation; but if his Tables are more carefully analyzed, this will be found not to be the case; for instance, he gives the following results of 21 cases of complete fracture of the femur that came under his observation: of these 3 were amputated in the field, with 3 deaths (2 very unfavourable cases); 3 primary amputations in the Hospital, 1 death; 15 reserved for cure, or secondary amputations: of these 8 died without amputation, 6 were amputated, of which 3 died and 1 remained under treatment at the end of eighteen months, without hope of ultimate recovery, so that it may be reckoned among the deaths; thus, we have of 6 primary amputations, 4 deaths, and of 6 secondary amputations, 3 deaths; hence it is inferred, that the secondary were less fatal than the primary; but the case must really be put thus: of the 6 cases

of primary amputations, 4 died, or 66 per cent.; of the 15 cases, not primarily amputated, 12 died, or 80 per cent.; so, even this Table, when examined closely, carries all the weight which such a small number of cases can in favour of early operation; and it is only by tables such as this, giving the results of the whole of the cases, whether operated on or not, that the question can be correctly determined.

I regret that I am not able to furnish any such statistics from the present war on a sufficiently large scale to be of any practical value, and, indeed, it would be difficult for any single individual to do so; but it is to be hoped that the authorities in the Army Medical Department will, at the conclusion of the war, give to the world as complete a Surgical history of it as they are able to collect, particularly with reference to this, as well as other important subjects.

Treatment of Stumps.—The practice recommended in all older works on Surgery, sanctioned by Guthrie, and generally adopted, as far as I had an opportunity of observing, by both French and English Army Surgeons in the Crimea, is to bring the flaps together, and dress the stump immediately on the conclusion of the operation; but the plan now becoming so generally introduced into civil Hospitals, of leaving the face of the stump open for six or eight hours, in order that all hæmorrhage from the smaller vessels should have ceased before it is put up, was employed in nearly all cases during the time I remained with the 63rd Regiment, and with very marked advantageous results; as it appeared to me, and, I believe, to the other Medical Officers of the regiment, that it was often the means of saving much trouble and most valuable time to the Surgeon, as well as pain and after ill-consequence to the patient; for it must have occurred to all Surgeons of large experience, in cases where the flaps are brought together at the time of the operation, that not unfrequently a few hours after, when the patient gets warm in bed, and reaction comes on, an oozing of blood takes place from numerous small vessels, and the only remedy then is the most unpleasant one of undoing the sutures, laying open the surface of the wound, turning out the coagulated blood from within, and securing the bleeding vessels, or otherwise arresting the hæmorrhage. In amputations after gun-shot wounds, this is especially liable to take place, as, in consequence of the great collapse or shock resulting from the injury, and from which the patient has frequently but imperfectly recovered at the time of the operation, there is generally but little bleeding then, often but two or three vessels requiring to be secured, even in the thigh; but the hæmorrhage which comes on when re-action is established is proportionally severe, and also, owing to the great pressure of work which usually falls on the hands of the Military Surgeon after an action, he has not so much leisure to examine minutely for every point that is likely to bleed as can be done in civil practice. After the battle of Inkermann, the greater part of the amputations in the 63rd Regiment were done in the afternoon and evening of the same day; sutures were put in at the time of the operation, while the patients were still under the influence of chloroform, but not drawn together, and the stumps were left open, or simply covered with a piece of wet lint; then, having attended to the rest of the wounded (upwards of 100), we lay down to sleep,; and, at about two o'clock in the morning, Dr. Lewins (Surgeon to the regiment) and myself got up and went back to the hospital tents, to look to our stumps. We then found the advantages of having left them open; for several small vessels, which had previously escaped observation, had now commenced to bleed, and were secured without trouble, and all hæmorrhage being fairly arrested, the flaps were brought together and dressed in the usual manner, with strips of adhesive plaster, and above that was dry lint secured by a roller.

Owing to circumstances I have mentioned before, we were not able to observe the progress of our cases, but, during the three days they were with us, we had not occasion to interfere with the dressing of a single stump, from hæmorrhage, or any other cause; and that this treatment was ultimately successful, may be gathered from the fact that, out of four cases of amputation of the thigh, three have recovered, and are now well, the fatal case being one that was almost hopeless from the first, owing to severe injuries in other parts of the body.

Some Surgeons have objected to this plan of treatment, that it is unfavourable to union by primary adhesion. This, however, does not hold good, as the experience of all who have tried it shows; and we are led to the same conclusion on theoretical grounds; for it is well known that nothing so effectually prevents union, and leads to suppuration, as a layer of coagulated blood between the cut surfaces: hence I think that it deserves more consideration from those who have an opportunity of performing many operations, as may again be the case with the Surgeons of our army, should the present war continue.

Chloroform.—One of the greatest of the recent improvements that have been made in Surgery is, undoubtedly, the production of anæsthesia, by the administration of chloroform during operations. But, before the present war, the advantages of this proceeding in military Surgery had yet to be tried on a large scale, and doubts were entertained as to its value; notwithstanding which, however, after a few trials, it became very generally adopted in the Crimea, and with a success which has even astonished its most sanguine advocates. It is true that we have as yet no accurate statistical information of the number of cases in which it has been given, and of the number of casualties; but if such a return ever could be made, I believe it would be found that the latter were even below those occurring in ordinary practice, although the method of administration was generally the simplest, but, at the same time, most convenient and effective mode,—a folded piece of lint, on which the chloroform was poured, being held before the mouth and nose of the patient.

Besides the humanity of saving so much suffering, the convenience to the operator, of having the patient in a state of insensibility, was very great, especially where assistants were scarce, and operating tables not the most commodious, (ours consisted of a stretcher, supported by the hospital-panniers;) and it was found that, instead of causing greater depression, as had been anticipated, it had quite the opposite effect, besides saving the second shock, which the pain of the operation would have superadded to that of the injury. I did not meet with, or hear personally of, any fatal case, or evil effect, from its administration; but one death is recorded by Staff-Surgeon Gordon, C.B., in the last edition of "Guthrie's Commentaries"—the only one that I have heard of, out of the thousands of cases in which it has been given.

The French Surgeons seemed also to have entertained a dislike to the use of chloroform at the commencement of the war; for I observed it was very rarely given by them in the operations after the battle of the Alma. Whether further experience has led them to modify their views on the subject, I have not been able to ascertain.

(To be continued.)

REMARKS RELATIVE TO THE APPRECIATION OF IMPRESSIONS MADE ON THE TRUNKS OF SENSORY NERVES.

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The following passage, quoted from Todd and Bowman's Physiology, Vol. I, page 231, expresses, I believe, the accepted doctrine relative to the conducting action of sensitive nerves. "In the sensitive nerves, the usual situation from which the stimulus acts is at their peripheral distribution; but, at whatever point a sentient nerve be stimulated, a sensation will be produced which will be referred to those parts, and to those only, to which the fibres irritated are distributed." Romberg refers to this same doctrine as "the law of eccentric phenomena." I have long entertained doubts whether this statement is not too absolute, whether it would not be nearer the truth to say, that when a nerve of sensation is irritated at any point, the sensorium refers the impression not only to the periphery of the irritated fibres, but often also to that point of their course at which the stimulus has been applied. It certainly appears to me, that when I strike my funny-bone, the chief agony is at the seat of the blow, not in the ring and little fingers. One lay friend whom I have just interrogated on this matter, says, without doubt, "my hand flies to the elbow to remove, by rubbing it, the pain I feel there." Another replies that the chief agony "is just where it is hit." Now, I do not think it can be said that the pain felt in the

part struck is merely that of the skin; it appears to me to be situated much more deeply, and to be of a very peculiar kind, quite unlike any sensation that the cutaneous nerves of the part could communicate. Moreover, this deep-seated pain appears to thrill down along the course of the nerve, till it arrives at its peripheral distribution, where it produces a sensation certainly more intense than any that is felt in the rest of the track of the nerve, but not by any means equal to that experienced behind the inner condyle. Many similar instances might, I believe, be found. The extreme painfulness of neuroma is well known, in the seat of the tumour, as well as at a distance. In the affection termed clavus hystericus, evidently a variety of frontal neuralgia, the pain seems to affect the nerve, especially just as it issues from the supra-orbitary foramen. So also in the notes of a case of sciatica now before me, which was cured by arsenic, the pain affected the sciatic nerve just as it escaped from the pelvis, and did not, as is more common, extend along it in its downward course. These facts must be allowed to prove that the law of eccentric phenomena is by no means without exceptions, and that at least under various conditions of morbid excitation the impression received by the sensorium is referred to an intermediate point in the course of the nerve and not to its periphery. The common observation, that the pain in neuralgia shoots along the trunk of a nerve into its ramifications, appears to me to be of the same import, as it is quite impossible to regard the sensation as the result of a rapid affection of a series of terminal cutaneous filaments. Romberg, at p. 29, Vol. I. of the Sydenham Society translation, alludes to the phenomenon I have drawn attention to, and says, that "as yet we are unable to offer a physiological explanation" of it. I feel inclined to look upon it as an ultimate fact, not more easy or difficult of comprehension than that which is contained in "the law of eccentricity," as he terms the doctrine stated at the commencement of this paper. The therapeutic conclusion is, that we are physiologically right in applying narcotic drugs as near as possible to the seat of pain, although that be a nervous trunk. Thus Dr. Fuller states that a mixture of belladonna and opium painted along the course of the sciatic nerve, exerts a remarkable influence over the violence and duration of the spasms. M. Trousseau, recommending the endermic application of morphia, advises the first blister to be placed as near as possible to the origin of the suffering nerve; and in employing belladonna under similar circumstances, states that the most constantly useful proceeding in the treatment of sciatica, is to place pellets made with this drug and opium in an incision carried down to the subcutaneous fat. These methods, probably suggested by intuitive discernment, rather than by reasoning, seem, however, according to the view above stated, to be scientifically correct. The seat of the disorder is, in many cases, (I do not by any means say in all,) indicated by the locality of the pain; and to this we rightly address our remedies.

1, Southwick-place, Hyde-park, February 13.

ON DEATH BY CHLOROFORM.

By Dr. SYMONDS.

[Read before the Harveian Society, February 21.]

It will be allowed by most observers, that, in a very large proportion of deaths from chloroform, narcotism, in one form or other, is the first antecedent in time, and the most important in influence. When operating in its most favourable manner and degree, the chloroform having arrived at the encephalon, benumbs the central ganglia related with general sensibility, and, in most cases, involves also the ganglia of special sensation, as well as those of volition But when the action becomes dangerous, it extends to the respiratory centre (medulla oblongata), and the patient dies in the way of coma. The order of events is,—insensibility, interrupted breathing, stoppage of the heart's pulsation, death. The series is identical with that which occurs in anæmic coma, or in congestive apoplexy. In such cases the intimation of peril is first given by the breathing, and, if attended to, may save the patient. In another set of cases, death has been thought to take place in the way of asphyxia, or, to use Dr. Watson's more accurate term, apnœa; the fatal series beginning in the respiratory passages and cells, either because the air is too largely impregnated with chloroform to be chemically fit for respiration, or because the chloroform by its pungency excites spasmodic closure of the glottis. Each of these agencies may be an element, but I doubt its being unmixed with narcotism. The patient must have been previously stupefied in some degree; else, in the terrible struggles for breath, there would be signs of consciousness in the unmistakable reference by the gestures to the cause of distress and danger. Still, such cases may be conveniently classed under the category of apnœa, as an early and prominent fact. But in a third and more fearful, because more sudden and less remediable, group, the chief character is the early cessation of the heart's action; the patient dies in the way of syncope. Dr. Snow, the most philosophical and skilful investigator of chloroform, after its immortal discoverer, Dr. Simpson, is of opinion that the heart is directly paralysed by the poison in the blood. This view seems hardly admissible for two reasons:—First. In animals narcotized and killed by chloroform, the heart has been found capable of contraction after all respiratory action had ceased. Secondly. The supposition is superfluous. The direct action of the poison on the encephalon we know to be a fact; its direct action on the heart is only conjectured as probable. The former explains sufficiently the cases in question; therefore the latter is superfluous. But how does the former yield the requisite elucidation? Thus. We know that, either by reason of a peculiar susceptibility, or by the suddenness or violence of an impression on the nervous centres, syncope, that is, stoppage of the heart's action, takes place in the way of shock; it is thus that the heart is paralysed by passionate emotion, by concussion of the brain, by crushing of the limbs, by the instant apoplexy resulting from a large cerebral hæmorrhage, which causes sudden or extensive compression, or from a smaller hæmorrhage in the medulla oblongata. Whether the fatal influence is transmitted to the heart through the sympathetic or the par-vagum we need not stop to inquire. Analogous to such cases, in my opinion, is the occasionally sudden and overwhelming operation of chloroform on the nervous centres, and from these transmitted to the heart. The time is short for observing the phenomena in these deadly cases; but the pulse suddenly drops, the face shows a ghastly pallor, there is a slight twitching of the features, a faint gurgling of the breath, and the patient swoons into death. In cases which have stopped short of this tragic ending, there has been vertigo with fluttering of the heart, nausea, vomiting, extreme paleness of the face, and feebleness of the pulse; symptoms like those of slight concussion of the brain. In three instances I watched these phenomena with fearful interest, life having become almost extinct without one sign of interrupted breathing, but with every indication of deadly faintness.

That any narcotic agent, may, even in small quantities, act variously on the nervous centres, is matter of daily observation. The normal operation of a quarter of a grain of morphia, is to send the patient into a sound sleep. But in some individuals the hemispherical ganglia are so excited that delirium is the result; in other cases the patient suffers nausea, vertigo, faintness, and coldness, without any previous sleep. These symptoms do not come on so suddenly as when they are induced by chloroform; and, in the former case, the quantity of the narcotic introduced into the system, is not increasing every moment, as in the latter case. Therefore these symptoms gradually subside. The danger of chloroform consists mainly in the suddenness with which it operates; the very property which renders it so valuable as an anæsthetic. Suddenness of action modifies the operation of all agencies on the encephalon. The gradual compression of a morbid growth produces phenomena very different from those which ensue on a hæmorrhagic clot of the same dimensions; or, what is more to the point, blood exuding slowly from ruptured capillaries in the brain gives rise to changes of function very different in kind and in degree from those which ensue on the same amount poured out suddenly from a larger vessel. This again corresponds with Wilson Philips' experiments, as corrective of the inference drawn from those of Legallois. For while the latter had concluded that the heart derived its contractile power from the cerebro-spinal axis, because destruction of the nervous centres was immediately followed by cessation of the heart's action,—W. Philip proved that this effect did not occur if the injury was inflicted slowly instead of suddenly.

That patients may die of chloroform in the way of syncope, is, I think, fully borne out by necroscopic observations. In several cases it is on record that blood was found in both

ventricles, and in other cases that both were empty; neither of which conditions is significant of death by apnœa.

Moreover, it appears that many have died in less than two minutes. From three to five minutes is the shortest time allowed to death by apnœa. Out of twenty-five cases in a Table published in the *Provincial Association Journal*, (February 11, 1853,) I find that in nine cases it is expressly stated that death took place either within two minutes, or less, or "instantly." Stress has often been laid on the gorged condition of the lungs. This appearance in some of the cases is wanting, and, where it is stated to have been present, we do not find such evidence as would enable us to discriminate the amount due to the fact that the patient died suddenly and full of blood, from the amount assignable to death by apnœa. The heart has been occasionally found in a state of fatty degeneration of fibre. When thus structurally weak, its function is of course more likely to cease, whether the antecedent has been the interrupted breathing of coma, that of pure apnœa, or the shock from the nervous centres, to the danger of which, it has been the chief object of this brief paper to suggest some attention.

To some of the members of this learned Society these remarks may appear so obvious, that they ought not to occupy any of the time devoted to an evening meeting; but I cannot forget that men of the highest standing in the Profession have seemed to ignore that mode of death from chloroform of which I have been speaking, and say, authoritatively, that the signals of impending danger are to be looked for only in the respiration. Chloroform is so priceless a boon to mankind that we should all endeavour to ascertain, with the utmost exactness, the nature of the difficulties and perils which beset the use of it; and, by so learning to prevent or overcome them, we may abate if not altogether remove the apprehensions which hinder recourse to this assuager of the anguish of disease—this spell against the terrors of Surgery. I venture, therefore, to say to my brethren, that, however important it may be to watch the breathing, we must not be content with doing this alone. Life rests on a tripod: each of its three supports must be cared for;—the narcotic surprise of the encephalon may tell fatally on the heart before the lungs have felt any disturbance of their function. It is our duty to insist on full recumbence, to watch the lips, the cheeks, and the pulse, and to be prepared to dash cold water on the face and to apply galvanism. When the indications of syncope are very manifest, I would even throw the head below the level of the body, as in extreme anæmia; for though the heart has been for the time paralysed through the brain, the latter organ must be immediately influenced in its turn by the failure of the circulation; and thus the heart which might otherwise have recovered from the first shock has its action still further depressed by that very condition of the brain which the failure of its own function had deepened. So true is it that the healthful round of life may, by one interruption of the rotation, be converted into a vicious circle of disorder and death.

Clifton.

LACERATION OF THE PERINÆUM IN PRIMIPARÆ.

By W. H. BORHAM, Esq., M.R.C.S., Lic. in Midwifery, &c

Of all the communications on obstetrics which have recently appeared in the *Medical Times and Gazette*, I may say that none will create more sensation or consternation in the Profession than that of Dr. Snow Beck's on "The Laceration of the Perinæum in Primiparæ," which was published on the 23rd of February.

Such a state of things is only to be ascertained by men of large midwifery practice, and by gentlemen who have carefully examined the parts after parturition, and, therefore, much commendation is due to the author for the pains he has taken, before he drew up his practical paper.

My first impression on launching into the practice of obstetrics, as to the infrequency of this accident, coincided with Dr. Snow Beck's; although I, like himself, from practical experience, have had occasion to modify that opinion; but the cases of primiparæ that I have attended will not by any means bear out a comparison to the proportion of lacerations which happened in Dr. Beck's practice. Two-thirds of one hundred and twelve cases he attended in five years met with ruptures more or less extensive—a number almost incredible, and only to be reconciled to the reader's understanding from the trustworthy respectability of the author's account.

Dr. Snow Beck solicits communications upon this subject; and, indeed, it is imperative on practical grounds that all experienced accoucheurs should truthfully record their average of such cases, as the estimate of the author's experience is so contrary to the received opinion in such cases.

Evidently Dr. Snow Beck has been a martyr to lacerated perinæums—an unaccountable and unusual number falling to his share in practice; and I am happy to say that my experience makes such accidents the exception and not the rule.

The number of primipara cases I have personally attended and recorded during the last three years is ninety-four; of these, four were forceps cases. The number of ruptured perinæums was three, and one of these must be included in the forceps cases. Mine were not quite three per cent., while Dr. Beck's were about seventy per cent., a disproportion indeed great.

I need not enter into the details of my three cases. Suffice it to say, that the respective ages of them were 32, 33, and 33 years; one was a lymphatic, fair-skinned, spare little woman; another, a tall, dark, strong Welch woman; and the third a stout, florid, thick-set, fat woman. The first had been married two years, the second five, and the third eleven. Their pelves were large, and their coccyges projected forwards, and were unyielding; and their labour pains were, in the latter stage, more powerful than ordinary.

The perinæum of each was thick and undilatable, at the onset of labour, and the children were also larger than the common run of them. In the first case the perinæum was rent when the head made its exit; in the second, from the pressure made by the shoulders; and in the third, from traction by the forceps. In neither case was the sphincter ani torn through, but in all the cases the fissure extended to the anterior margin of its external fibres. Every precaution, by supporting the perinæum, was carried out. The skin at the outlet of the vagina and that covering the perinæum, was as thin and tense as parchment, and enveloped the heads of these children like a nightcap just previous to their expulsion. Such a state of things is not uncommon in primiparæ, and it is only a wonder how so many escape this accident. The tear I have always found to commence from before backwards, *i. e.* from vagina to rectum.

The treatment of these cases varied, and each was unsuccessful in healing by the first intention; indeed it is difficult to imagine how such a healing process could be so readily accomplished after labour, as the parts have not, and indeed could not, become properly contracted after the recent laceration; besides, the constant flow of the lochia into the wound would render its sudden union almost impracticable; for, as well may we expect healing by the first intention of a recent fissure between the bladder and vagina, as the primary healing of a recent laceration of the perinæum after labour. The two are almost analogous. My treatment of the first case was by rest and constant bathing with warm water. At the end of three months the process of granulation partly filled up the rent at its anal extremity, and integument covered the remaining torn structure on each side, till it merged into the labia majora and vagina. Steel and quinine were given. The first fortnight she could scarcely control her motions, but this action became normal at the end of two months.

In the second case, a few hours after labour, I drew the parts in apposition, and tacked them together by three interrupted sutures, enjoining rest and cleanliness, as in the first case, and kept the bowels constipated; there was not the slightest disposition to union, and in four days the ligatures sloughed away, rendering the breach larger and less inclined to heal than before; it, however, ultimately partly filled up and healed by granulations, as in the first case.

The last one I treated by shaving the hair from the lower part of the labia majora and perinæum surrounding the tear, as I thought its presence might keep up an irritation preventative of healing, and I tied the thighs and knees of the patient together with a handkerchief, and enjoined rest and cleanliness as before; the fæces were passed involuntarily in this case for a few weeks after labour, but at the end of a month became subject to control. This case healed by granulation the same as the others.

They all three now feel comparatively well, except now and then greater feelings of a bearing down nature when they have a motion, than they did previous to their confinements.

The only difference that is seen, or experieneed by them, is a shorter vagina, with a larger orifice, and minus its sphincter contraction,—a circumstance which might inflict uneasiness on some parties, and be taken little notice of by others.

I am now induced to draw this inference from my experience:—That operative measures performed shortly after labour, do harm, and very rarely indeed heal by the first intention; but when health, strength, and vigour are restored, the patient, if she choose to submit to the plastic operation, would feel, if it be successful, more comfortable and natural about the lower part of the pelvic cavity.

I fully agree with Dr. Snow Beck, that the best treatment is palliative, during the child-bed month. Also that many cases of laccrated perinæum occur when both patient and the medical attendant are unaware of the accident.

I have often, when attending women in labour who have previously borne children, detected that laceration of the perinæum, more or less extensive, had once taken place; such labours—when the child's head has descended to the remnant of the perinæum,—being exceedingly quick. But I cannot quite fall in with the view Dr. Snow Beck has taken in the last few lines of his paper: he says, "there appears a strong tendency to exist for the healing of any tearing, or other injury to the generative organs of the female when the process of parturition has been completed." I do not think that in these cases such a tendency to heal exists as he does. Solution of continuity does not more readily heal in the generative organs than in other parts of the body. Lacerated perinæums do not heal, as a rule, so readily as other lacerations would do on other parts of the same subject. But if Dr. Beck's opinion be sound, why do not lacerations of the perinæum after labour treated by the sutures unite kindly? And, if I felt as Dr. Beck has expressed, I would try to unite every recent laceration by suture, and would expect every case to heal by "the strong tendency" he believes in. But the case that he operated upon, and the one I did by the sutures, proved the uselessness of such a measure.

19, Cambridge-terrace, February 28, 1856.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING FEBRUARY.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

The case left under care by last month's report has since recovered.

Number of cases, 5; recovered, 4; died, 1.

Case 1.—A boy, aged nearly 3, under the care of Mr. Cock, in Guy's Hospital. He was in fair health, but had suffered severely from the irritation of the stone. A very small and light stone, not weighing quite three grains, was removed. Recovered well. *Case* 2.—A healthy boy, aged 10, under the care of Mr. Stanley in St. Bartholomew's. When admitted he was suffering severely from vesical irritation. The symptoms having somewhat abated under treatment, the usual operation was performed, and a large mulberry calculus removed. The wound was healed in twelve days, recovery having been uninterrupted. *Case* 3.—A boy, aged 7, in fair health, under the care of Mr. Skey, in St. Bartholomew's. Symptoms of two years' duration, and latterly severe. A mulberry stone, the size of a filbert, was removed. Recovered well. *Case* 4.—A boy, aged 9, in fair health, under the care of Mr. Hutchinson, in the Metropolitan Free. Symptoms had existed for many years, but had been very slight. A large, very rough, mulberry calculus was removed, weighing nearly half an ounce. Recovered without a bad symptom. *Case* 5.—A healthy man, aged 79, under the care of Mr. Solly, in St. Thomas's. He had been the subject of stone for several years, but had not, until lately, suffered much inconvenience from it. The usual operation was performed, and a calculus of moderate size removed. The man did well for a few days, when hæmorrhage from the region of the prostate ensued. This was, with some difficulty, controlled; but the patient gradually sank, and death took place at the end of the week. At the autopsy all the viscera were found to be healthy, excepting that the mucous membrane of the bladder was congested, and that there was a very small collection of matter in one part of ts parietes.

HERNIOTOMY.

Number of cases, 7; recovered, 5; died, 2.

Case 1.—A man aged 22, under the care of Mr. Lane, in St. Mary's, on account of congenital scrotal hernia. Neither testis had descended lower than the external ring, and on the right side the gland lay to the inner side, and in front of the hernial protrusion. Strangulation had existed two days, and the symptoms were urgent. The sac was opened, and found to contain omentum and small intestine. A portion of omentum was cut away, and the rest retained in the wound by a ligature. Recovered without a bad symptom. *Case* 2.—A woman aged 45, under the care of Mr. Birkett in Guy's, on account of femoral hernia. Strangulation 44 hours. Sac not opened. A portion of irreducible omentum was left in the sac. The wound healed quickly, and the woman was convalescent within a few days after the operation. *Case* 3.—A woman, aged 37, under the care of Mr. Stanley, in St. Bartholomew's. Hernia femoral, strangulated three hours; symptoms well marked and tumour very painful. Sac not opened. Recovered well. *Case* 4.—A woman, aged 56, under the care of Mr. Lloyd, in St. Bartholomew's. Hernia femoral, strangulated twenty hours; symptoms severe. Sac not opened. The woman was in ill health prior to the descent of the hernia, and, for some days after the operation, she suffered from peritonitis. Under treatment by opium and grey powder she made a good recovery. *Case* 5.—A woman, aged 44, under the care of Mr. Lloyd, in St. Bartholomew's. Hernia femoral, and of enormous size, extending from the pubes to the spine of the ilium, and being from three to four inches in breadth. The hernia had existed for a short time only, and no truss had ever been worn. Strangulation forty-eight hours; symptoms severe. The stricture was freely divided, and, without opening the sac, the reduction of several coils of intestine and a large portion of omentum was effected. A considerable mass of omentum remained, however, irreducible in the sac. During four days following the operation the signs of peritonitis were present, and, on the fourth, Mr. Lloyd determined to open the sac. A portion of omentum, in a sloughing condition, was cut away. Profuse suppuration of the sac followed, and a counter-opening over the spine of ilium had to be made. Under the free use of tonics and stimulants the woman made a good recovery, and there is reason to believe, that the neck of the sac has been permanently obliterated, as the hernia does not now protrude even on violent coughing. *Case* 6.—A man aged 36, under the care of Mr. Birkett, in Guy's, on account of a congenital hernia, complicated by an undescended testicle, which rested in the external ring. Strangulation had existed eleven hours, and the symptoms, which were extremely severe, were not relieved either by the warm bath, opium, or chloroform. The sac was opened, and the bowel found much congested. The canal was long, and the stricture tight. The man did well for some hours after the operation, but subsequently sank into collapse, and died the next day. The autopsy showed evidences of acute peritonitis. The strangulated bowel was a portion of ileum. *Case* 7.—A woman aged 43, under the care of Mr. Luke, in the London. Hernia femoral, strangulated seven days. She had been under treatment, before admission, for what was believed to be fever, the hernia not having been discovered. At the time of the operation she was all but pulseless, and in extreme collapse. It was not deemed justifiable to attempt the taxis. As the director was being passed under the stricture, the sac not having been opened, both sac and gut gave way, and feculent matter escaped into the wound. The patient never rallied, and death followed about twelve hours after the operation. The autopsy showed the gut ulcerated just where the sharp edge of Gimbernat's ligament had pressed on it.

AMPUTATIONS.

Several of the cases previously mentioned remain under care.

Of the Thigh.—Case 1.—A man, aged 31, under the care of Mr. Cock, in Guy's, on account of old-standing disease of the knee-joint. He had improved in health during treatment, preparatory to the amputation, and was in a fair state. The stump healed quickly. *Case* 2.—A man, aged 26, in good health, under the care of Mr. Gowlland, in the London, on account of a complete crush of the leg and foot. Amputation above the knee was performed four hours after the accident. Doing well. *Case* 3.—A Swede, aged 39, under Mr. Tudor's care in the Dreadnought, on account of disease of the knee-joint, of a year and a-half's duration. Circular amputation of the thigh. Three days after the operation a mild attack of erysipelas commenced It passed off, however, and he subsequently progressed favourably. Symptoms suspicious of pyæmia have since occurred. Under treatment. *Case* 4.—A man, aged 30, under Mr. Tudor's care in the Dreadnought, on account of very extensive syphilitic ulceration of the skin of the leg and knee, exposing the patella and the tibia in several places. The knee-joint had been opened by phagedenic ulceration shortly before the amputation. Amputation by flaps. He was in a precarious state from constitutional irritation for two weeks after the operation, but has since done well. Under treatment. *Case* 5.—A lad, aged 13, under the care of Mr. South, in St. Thomas's, on account of diseased knee-joint. He had been greatly reduced by long-continued suppuration. Since the amputation he has done well in every respect. *Case* 6.—An unhealthy-looking young man, under the care of Mr. South, in St. Thomas's, on account of diseased knee-joint. Recovered well.

Of the Leg.—Case 7.—A boy, aged 14, in good health, admitted into Guy's under the care of Mr. Birkett, having had his foot and lower part of the leg crushed in machinery. Primary amputation by lateral flaps of skin, and circular incision through the muscles. The stump healed slowly by granulation. Well. *Case* 8.—A man, aged 36, under the care of Mr. Coulson in St. Mary's. Three weeks before admission there had been low inflammation of the cellular tissue of the foot, from exposure to cold. Free incisions had been practised. The foot was threatening gangrene, and the ankle-joint was implicated. The man was very much reduced. Amputation by flaps in the middle of the leg. Some sloughing followed the operation, but the patient is now doing well. *Case* 9.—A man, aged 38, in good health, under the care of Mr. Cock in Guy's, on account of strumous disease of the ankle-joint. Amputation in the middle third of the leg by lateral flaps. Doing well. *Case* 10.—A man, aged 46, under the care of Mr. Cock in Guy's, on account of compound fracture, with great injury to the left leg. Gangrene ensued, and secondary amputation just below the knee had to be performed on the twelfth day. The man at the time was extremely low. The stump was attacked by superficial gangrene, and death took place eight days after the amputation. At the autopsy extensive pneumonia was found, one part of the lung being almost gangrenous.

Of the Foot.—Case 11.—A boy, aged 10, under Mr. Curling's care in the London, on account of diseased tarsus of twelve months' duration. Amputation at the ankle joint was performed, a small portion of the os calcis (merely the outer shell) being left in the flap. The maleoli and articular facet of tibia were sawn away. The stump is doing well.

Of the Upper Extremity.—A man of middle age, under the care of Mr. Lee in King's College, on account of disorganization of the elbow-joint. Amputation through the upper arm.

LIGATURE OF ARTERIES.

A man, aged 30 was admitted into King's College, on account of a large popliteal aneurism. The tumour had followed a blow on the part, inflicted six weeks before admission, in jumping an iron gate. Treatment by compression was tried, but could not be borne. During the fortnight the man was in the Hospital before the operation, the aneurism became diffused, and doubled in size. Ligature of the superficial femoral was performed. Four days after the operation, mortification of the foot began. A line of demarcation afterwards formed about the ankle, and separation is now proceeding. The man is in good general health. The ligature came away on the nineteenth day, and the wound healed well. Under treatment.

EXCISION OF JOINTS.

Case 1.—A lad, aged 18, under the care of Mr. Fergusson, in King's College, on account of diseased knee joint. The disease had existed a year and a-half. Excision of the extremities of the femur and tibia was performed, the patella being left. The patient has since done remarkably well. Under treatment.

Case 2.—A woman, aged 40, under the care of Mr. Solly, in St. Thomas's, on account of disease of the elbow-joint, resulting from a blow received five months before. The articular extremities of the bones were excised. The disease was found to affect principally the end of the humerus. Part of the wound healed by first intention, and the rest is rapidly filling up. She has much improved in health since the operation.

Case 3.—A woman, aged 56, under the care of Mr. Hutchinson, in the Metropolitan Free, on account of disease of the elbow-joint. The disease had existed about a year, and had latterly caused extreme pain. She was wasted and feeble. An abscess, communicating with the interior of the joint, had been opened a fortnight prior to the operation, but previous to that, no discharge of pus had occurred. These soft parts about the joint were greatly swollen. Excision of the articular extremities of the three bones was performed, the ⊢ incision being practised. The patient has had no ill symptoms since the operation, but the process of healing goes on only slowly. Under treatment.

REMOVAL OF THE EYEBALL.

A woman, aged 41, under the care of Mr. Bowman in King's College, on account of a melanotic growth from the front of the eyeball. Three previous excisions had been performed. The disease had existed nine years. Mr. Bowman removed the entire globe. Recovered well.

REMOVAL OF THE TESTIS.

Case 1.—A man, aged 30, under the care of Mr. Skey, in St. Bartholomew's, on account of great enlargement of the right testis. It was larger than a fist, firm, and heavy. The disease had commenced spontaneously six months ago, and no material pain had attended it. The cord was not affected, there was no evidence of disease of the lumbar glands, and the man was in pretty good health. The scrotum was reddened, and the testis adhered to it. Excision of the gland was performed in the usual way. The disease proved to be cystic, with medullary cancer, the cysts being small, and the greater portion of the mass consisting of cancerous material. (Microscope not used.) A portion of healthy testis structure was expanded in front of the tumour.

Case 2.—A man, aged 65, under the care of Mr. Hutchinson in the Metropolitan Free. The left testis was enlarged to the size of a small fist, but was quite movable in the scrotum. The history was of an increase for six years. It was removed chiefly on account of its weight and inconvenience. The disease proved to be a thick-walled cyst in the tunica albuginea. (See Report of the Pathological Society.) The man recovered well. In the operation Mr. Hutchinson employed for holding the cord an ingenious little instrument recently devised by Mr. Callaway, of Guy's, for that purpose. The incision, instead of being made, as usual, in front of the scrotum, was made at the bottom, a depending opening for the escape of matter being thereby secured.

EXCISION OF MALIGNANT TUMOURS.

Case 1.—A man, aged 52, was admitted, under Mr. Skey's care, into St. Bartholomew's, on account of a growth of epithelial cancer, about the size of a penny, on the back of the hand. It had existed for three years, and had been painful for one. There was no history of any irritant having been applied. Excision was performed by Mr. Hodgson, (House-Surgeon,) and the wound healed well.

Case 2.—A chimney-sweep, aged 46, under the care of Mr. Lloyd in St. Bartholomew's, on account of cancerous ulcers on each side of the scrotum. The disease had begun as warts two years before. The glands in the groin were enlarged, but not hard. The appearance of the ulcers was not very characteristic of soot cancer. Excision of both in one piece was performed, the left tunica vaginalis being opened by the knife. Secondary hæmorrhage made it necessary to re-open the wound, and apply more ligatures. The wound ultimately healed well, and the tumefied glands diminished in size. Recovered.

See "Removal of the Breast, of the Testis, and of the Eyeball."

REMOVAL OF THE BREAST.

Case 1.—A woman, aged 42, in good health, under the care of Mr. Hilton, in Guy's, on account of cancer, of eight months' duration. Excision of the whole breast. Doing well. *Case* 2.—A woman, aged 50, in good health, under the care of Mr. Adams, in the London, on account of a tumour the size of a hen's egg, in the outer part of the gland. The whole breast was removed, and the tumour proved to be scirrhus. A slight attack of erysipelas followed, but was well recovered from. Recovered. *Case* 3.—A woman, aged 63, under the care of Mr. Lane, in St. Mary's, on account of a scirrhous growth in the breast, of nine months' duration, and rapidly increasing. After the operation, she became very desponding, and low erysipelas set in, and ended in death. The wound has continued healthy. *Case* 4.—A woman, aged 43, under the care of Mr. Fergusson, in King's College, on account of scirrhus of the breast, of five months' duration. Excision. Recovery. *Case* 5.—A woman, aged 43, under Mr. Birkett's care, on account of scirrhus of the breast. A similar tumour had been excised from the same breast before. The recent growth had existed five months. Excision of entire gland. Recovery. *Case* 6.—A woman, aged 35, under Mr. Birkett's care, in Guy's, on account of scirrhus, of five years' duration. Only the lobes involved were removed. Recovered. *Case* 7.—A healthy-looking woman, aged 39, under Mr. Birkett's care, in Guy's, the breast being infiltrated with cancer. Excision of the whole breast, and also of some glands from the axilla. Recovered. *Case* 8.—A healthy-looking woman, aged 36, under the care of Mr. Birkett, in Guy's, on account of infiltrating cancer of the left breast. Only the affected part of the gland was excised. Recovered.

LITHECTASY IN THE FEMALE.

A woman, aged 48, was admitted, under the care of Mr. Cock, into Guy's, suffering severely from the symptoms of stone in the bladder. She had almost constant incontinence of urine. A large stone having been detected, dilatation of the urethra was practised (by a bivalved dilator) until the fore-finger was readily admitted, after which forceps were introduced, and the stone crushed and extracted in fragments. It was a soft, phosphatic concretion. The bladder was afterwards syringed out, and appeared to have been quite cleared. For a few days the incontinence of urine persisted, but it afterwards gradually ceased; and, at the time of her discharge, the patient was well in every respect, excepting that occasionally the urine escaped during sleep. This woman was under care in St. Bartholomew's about two years ago, on account of calculus in the vagina and bladder, the concretions being connected through a vesico-vaginal fistula high up. Large portions of the stone were then removed, but not the whole of that occupying the bladder. When admitted under Mr. Cock, there was no deposit in the vagina, and the fistula could not be found.

PHARYNGOTOMY.

A case in which pharyngotomy was necessary for the removal of a foreign body, has been successfully treated in Guy's by Mr. Cock; its full details have already appeared in our pages. See *Medical Times and Gazette* for February 9 and February 23, pages 135 and 188.

Medical Times & Gazette.

SATURDAY, MARCH 29.

THE NEW MEDICAL REFORM BILL.

The second reading of the New Medical Reform Bill having taken place, and its committal having been fixed for next Wednesday, the Profession is beginning partially to arouse itself from its apathy, and to inquire how far the provisions of the proposed measure will affect its interests. The different Medical Corporations are also actively at work, some in proposing amendments upon the new scheme, and others, which constitute the majority, in devising means for defeating it altogether. The Government, who at first were inclined to the belief that a great proportion of the Profession was anxious for the success of Mr. Headlam's Bill, are now beginning to perceive their mistake, and to discover that its chief promoters are not those who enjoy the confidence of our own body or of the public in general. A small knot of agitators has, it is true, contrived, by handing about stereotyped petitions, to obtain a few signatures in favour of their views; while the general apathy upon the subject which has prevailed has been misinterpreted into an indication of assent. Those who have offered objections to the principle or the details of the Bill, have been quieted by the assurance that every conceivable alteration, suitable to the taste of each objector, will be proposed and carried in Committee; and we believe that we do not misrepresent the views and intentions of those who are urging the Bill on the Legislature, when we state that any and every compromise will be made in order to carry *some* measure during the present session. We believe Mr. Headlam to be actuated by a sincere desire to promote the best interests of our Profession; but we hope that a more extensive acquaintance with the persons whom our fraternity and the public most delight to honour, will demonstrate to him the necessity of pausing before he hurries through Parliament a well-meant, but crude and undigested scheme, concocted with the view of pleasing all parties, but likely to prove satisfactory to none.

The present state of Professional opinion on the subject of Mr. Headlam's plan of Medical Reform, may be briefly stated as follows, although we do not pledge ourselves to perfect accuracy in every particular, as some of the Corporations have not yet made known their views in a public manner:—It may be announced generally, that the three Colleges of Physicians of the United Kingdom are in favour of the measure; nor is this circumstance at all extraordinary, when we find that all future Practitioners will be compelled to contribute to the funds of these Corporations, whether Physicians or Surgeons, the two classes into which the Profession is to be divided, the General Practitioner being—at least in name—entirely abolished. But these three Colleges are by no means pledged to details; and insuperable difficulties exist especially to the composition of the Medical Council, which, indeed, appears to be Mr. Headlam's great stumbling-block.

The Colleges of Surgeons in the three divisions of the British Empire are unanimously opposed to the Bill, and intend to obstruct its progress in every lawful manner. They complain that their ancient rights and privileges are threatened with destruction; and that, while the new measure entirely exempts Physicians from any examination in Surgery, Surgeons, on the contrary, must all be examined in Medicine by one of the Colleges of Physicians. This provision is especially resented by the Edinburgh College of Surgeons, which has long examined its candidates in Medicine as well as in Surgery, and which complains that it would lose half its powers by the operation of the new Act.

The Universities of Great Britain are, as far as we can learn, unanimously opposed to the Bill. The University of London, which has taken a distinguished position in elevating the scientific character of its Graduates, resents the innovation which is contemplated upon its newly-acquired and hardly-won rights; the University of Edinburgh is indignant that its Graduates should be placed in a position of compulsory subserviency to the Colleges of Physicians; and the Universities of Oxford and Cambridge join the opposition on the same grounds.

The Faculty of Physicians and Surgeons of Glasgow, which is highly favoured by Mr. Headlam, inasmuch as it will retain the power of examining and licensing both in Medicine and Surgery, has not as yet expressed any public

opinion on the subject of the Bill, but we conceive that it must be favourable to a measure which promises very widely to extend its influence and augment its finances.

The London Society of Apothecaries, which, by accidental circumstances in 1815, was entrusted with the power of examining candidates and granting licences to practise Medicine, complains that its functions are to be annihilated by a measure which is said, moreover, to offer no counterbalancing advantages to the Profession for the powers thus abrogated. The Dublin Apothecaries Hall, which is likewise ignored, complains of what it deems to be a similar injustice.

We have thus rapidly sketched the present attitude of the Medical Reform question, as exhibited by the various Corporations which have hitherto possessed the power of determining the curricula and conducting the examination of the alumni of our Profession; and, although we do not attach undue importance to the sentiments and the opinions of parties whose interests will be more or less affected by the operation of the new Reform Bill, yet we feel convinced that the Government and the Legislature will regard with due respect the suggestions or the objections of those distinguished men who have long and honourably conducted the business of Medical education in this kingdom, and who are, of course, necessarily well acquainted with its practical details.

With regard to the great mass of the Profession, as we have before remarked, a general apathy everywhere prevails. No public meeting has yet been held upon the present Bill, and we have little doubt, from the results of former experience, that if such a meeting were to be called, many of the most respectable Practitioners would refrain from attending, and the business of the day would fall to the lot of a few persons, who do not truly represent their Medical brethren, but who love to fish in troubled waters, and, like the petrel, make their appearance on the approach of a storm. Judging from the communications we have received on the subject of the Reform Bill—and we have impartially published them all—there are very few who think it worth their while to write upon so hackneyed a theme; and, in our Journal, as well as in those which ostensibly support the Bill, the Correspondents who write against the measure are more numerous than those who support it.

Under these very discouraging circumstances we think that there is but little probability that Mr. Headlam's Medical Reform Bill will pass into a law; for even if the different parties above alluded to were agreed upon its principles, which is far from being the case, they would certainly disagree as to the details. The English Corporations would complain of the preponderance of Scotch influence in the composition of the Medical Council; the Irish Corporations would complain of their inferior position as compared with their Anglo-Scottish colleagues; the Scotch Practitioners would demand reciprocity of privileges, and the English might retort that the reciprocity was all on one side; the English might consider that Scotch Medical education was too cheap, and our northern brethren might allege that the same commodity in England was too dear: these, and a thousand other questions of detail would inevitably spring up in the progress of discussion, and Mr. Headlam would require the powers of a Hercules to meet and to satisfy all the objections, which, like the multitudinous and vivacious heads of the Lernæan hydra, would rise incessantly before him.

While thus predicting the failure of the scheme now before the House of Commons, we think it by no means improbable that the Government will take some steps in promoting a sound measure of Medical Reform, and we conceive that no better plan could be devised for obtaining just information upon this complicated question, than to call a Medical Council, analogous to that which was lately summoned by the President of the Board of Health, and which, being selected from the most eminent members of the Profession, might be enabled to represent, with due weight and authority, the wants, the wishes, and the aspirations of the highly educated and intelligent body of gentlemen who constitute the Practitioners of Medicine in the British dominions.

MEDICAL COMPANIONS OF THE BATH.

Some surprise has been excited by the fact, that when the late decorations—eight in number—were bestowed upon the Medical Officers of our Forces in the East, seven should have been given to officers of the Army Medical Department, and only one to a Naval Medical Officer. Various reasons have been assigned for this disparity. It has been said that the part taken by the Navy in the operations against the enemy was comparatively small, and therefore that the Medical Officers had less work and merited less reward. This, however, is manifestly incorrect. In addition to the bombardments of Odessa, Sebastopol, and Kinburn, and the successful operations in the Sea of Azof, the Naval Brigade rendered most important services throughout the whole of the siege of Sebastopol. The Surgeons attached to this Brigade managed to keep their men in as high a state of health and efficiency as any division of the army, and did regular duty in the trenches. One of them, Mr. Duigan, has on three occasions been complimented by his commanding officer for distinguished gallantry when assisting wounded men in situations eminently exposed to the fire of the enemy. He had been similarly noticed at Bomarsund, and had served throughout the whole of the Crimean winter. How many of the colonels and other combatants who have received the decoration of the Bath have earned it by equal service and valour? Much is said, also, about the Cholera in Bulgaria, and the noble exertions of Army Surgeons there; but the ships also suffered fearfully from the epidemic, as any one may see by turning back to our Navy Medical Reports and reading Mr. Rees's graphic description of its outburst in Admiral Dundas's flag-ship. We must remember, also, that Naval Surgeons gave great assistance to their brethren of the Army after the Battle of the Alma, that they exclusively attended the marines who served ashore in addition to the Naval Brigade, and that they were constantly employed in transports conveying sick to Scutari. All this is surely a sufficient answer to the plea of want of service.

Then it is said, that the distribution was conferred only upon officers of a certain rank, and that Dr. Deas was the only Deputy Inspector afloat. Here again we reply, that Dr. Deas was the principal Medical Officer of the Navy, and should have had the same grade of the Order as Sir John Hall. He organized the Hospitals of Therapia, and both Marine and Naval Hospitals at Balaklava; and not even the Correspondents of the daily papers could ever find a word to say against the admirable order of these establishments. No complaint was ever made that either of these Hospitals, or the Naval Brigade, or any ship in the fleet, was destitute of any medicine necessary for the treatment of the sick. There was no want of lime-juice and no scurvy among the sailors, nor any want of any Medical comfort. Yet Dr. Deas is only C.B. and Sir John Hall is K.C.B. Surely, also, Dr. Rees deserved the C.B. as much as his equals in rank, Drs. Dumbreck, Forrest, or Linton; and the Surgeons of the Naval Hospitals at Therapia and Balaklava, as much as the Staff-Surgeons of the Divisional Camp Hospitals. If Drs. Taylor and Mouatt were decorated, why were not Drs. Davidson and Smart equally rewarded for equally arduous service?

We have repeatedly exposed the causes which led to the so-called failure of the Army Medical Department during the

first year of the War, and shown that it was the fault of Military Routine at home, and Generals abroad, that our men died by thousands, of starvation, exposure, nakedness, and want of the commonest necessaries for successful Medical treatment. For the Naval Medical Department no such excuses have been needed. Their Hospitals at home and abroad have been confessedly admirable. Sailors afloat have been equally well attended to, and the result has been, that while, in one year, the loss of our Army by death from sickness was 30 per cent of the total force, the loss of the Navy scarcely exceeded that of average years in time of peace. Surely, if success be the criterion of the efficacy of a department, the Naval Medical Officers have some reason to boast of the system which has led to such results, and to have good reason for dissatisfaction at the very small share they have received in the distribution of those honorary distinctions which are supposed to be the rewards of merit.

We are not afraid of these remarks being misconstrued by the gentlemen of the Army Medical Department, because we know that they are equally anxious with ourselves that justice should be done to our brethren of the Navy, and that we have ever been foremost in awarding our meed of praise to the noble and heroic conduct of the Army Surgeons throughout the war. But we trust that the subject to which we have alluded will meet with the attention it deserves, and that we may soon see an addition made to the roll of the Companions of the Bath, by the insertion of the names of those Surgeons of the Baltic and Black Sea Fleets, and of the Naval Brigade serving before Sebastopol, whose services have best entitled them to the honour.

THE WEEK.

We are much gratified in being able to announce, that the movement in favour of the Poor-Law Medical Officers, so vigorously promoted and sustained by the exertions of Mr. Griffin, acquires strength from day to day. No less than 103 Unions have already joined the movement, and we receive daily reports of meetings in all parts of the country in favour of the same righteous cause. We have been favoured by Mr. Griffin with a list of gentlemen who have already subscribed to a fund formed for the purpose of defraying the expenses connected with his advocacy of the cause of our Poor-Law Medical brethren; and, although the sum is at present small, we have no doubt that, in consideration of the great sacrifices of time, labour, and money incurred by Mr. Griffin in his praiseworthy efforts, the number of subscribers will be rapidly augmented, and that gentleman be effectually secured from pecuniary loss. A small sum subscribed from each Union would amply suffice to carry on the proceedings with success.

We believe that scarlatina has for many months been extremely prevalent in every part of the country, visiting the baronial tower and the peasant's hovel with an impartiality such as the poet ascribed to death herself. Fortunately, the epidemic has been in general mild; yet the newspapers give us occasionally a glimpse of some awful domestic tragedy. The *Times* of Monday tells us of three children of a church dignitary at Carlisle, cut off within three weeks, and in the same journal of Thursday, we find that another victim has been added to the list. It would be quite out of place in this short chronicle of events to enter upon the question of the mode of propagation of this disease; yet we do not hesitate to express our belief, that infected places are more to be feared than infected persons. We would prefer to receive an infected child into our own house, than to send a child of our own to an infected house. We wonder that persons who can do so, do not at once fly a house in which the disease has shown itself virulently. Even for the sick themselves, any air is likely to be better than that in which they imbibed their malady.

A distressing case has occurred at the Exeter Assizes; distressing, not only from the peculiarly appalling combination of moral weakness, cruelty, and depravity which it exhibits on the part of an unfortunate woman, but for the folly and barbarity which are shown to be still adhering to our judicial proceedings. A woman named Mary Weeks, servant at an inn, had an illegitimate child, three or four years old. Marriage was proposed to her by a man named Warren, to whom the existence of the poor child was known, and who made it no obstacle. Nevertheless, the marriage did not take place; but the woman went to live with Warren, taking her child with her. But it seems that Warren soon became tired of the poor child, and complained of its being dirty; and, as is stated, one night, while in bed with the mother, suggested to her to drown him, telling her that many children were drowned without its being found out. Whereupon the wretched woman takes her child, and drowns it as she would a puppy. The chief evidence against her is her own statement, made to a woman named Davey; and she is found guilty, but recommended to mercy on the ground that she had been tempted to the crime by Warren. Sentence was passed, and then it was pleaded that she was "quick with child." Upon which the Court was cleared, and a "jury of matrons" was empanelled; two doctors were deputed to assist them; and it was left to this Court to decide whether or no the prisoner was "quick with child," as was alleged on her behalf. Their verdict was in the affirmative. In this strange proceeding, we object to the idea that a "jury of matrons,"—in plain English, a dozen of such women as would be found attending a criminal trial in an Assize Court—should be entrusted with the power of affirming or denying the opinion of two Medical Practitioners upon a Medical question.

The public, having borne patiently for so many years the notorious fact of the adulteration of almost every article of consumption, at length shows signs of rebellion. The Yorkshire people have been making seizures at Wakefield, Pontefract, Rotherham, and other places, of flour adulterated with alum, and, in one case, with gypsum. The flour has been given to the pigs, and the millers have been heavily fined. The Birmingham Board of Guardians has published a Resolution, to the effect, that after the 26th instant, they intend to have all drugs and articles of food analyzed.

A curious controversy has been carried on in the *Times* newspaper respecting the origin of green and black tea, A writer who calls himself "Young Hyson," affirms that the two varieties of tea are the produce respectively of two distinct species of tea plant, the thea viridis and thea bohea. We believe, however, that the existence of distinct species is by no means proved, and that the plants in question are varieties of one species, modified by climate and cultivation. But whether or not they be species or varieties, the fact is not affected, that both green tea and black may be produced from one and the same plant. If we may believe the testimony of Mr. Fortescue, and there is no better authority on the subject, green tea is tea in its greatest intensity, with the peculiar properties of tea in their highest state of developement; black tea has these properties modified and mitigated by the manner of preparing it. The quite fresh leaf resembles neither, and it is evident that the process of drying and beating must have considerable influence on the properties of the leaf. Green tea is dried quickly, black tea slowly; and the latter

undergoes a greater amount of fermentation and oxydation, through which the tannic acid becomes darkened. A visit to a common hay-field may enlighten "Young Hyson" on the changes produced in vegetables by air, heat, and moisture.

REVIEW.

Letters to a Young Physician Just Entering upon Practice. By James Jackson, M.D., LL.D., etc. Third Edition. Pp. 344. Boston: 1855.

We are sure that no one can rise from a perusal of these excellent "Letters" without feeling that they are the production of an earnest, painstaking, and observant Physician, who, while deeply impressed himself with the responsibility of his office, and with the duty of making all his observations centre in the great object of his Professional life, the cure of the sick, strives to put prominently before his younger brethren this same grand aim, which, amid the allurements of pathological research, and the minute inquiries which now-a-days crowd upon their attention, they are sometimes apt to forget. "I did not propose," writes Dr. Jackson in his Preface, "a systematic work; but I thought it possible, availing myself of the form and licence of letters, to give whatsoever useful thing my experience could furnish. Had I kept notes of cases in private practice, I might have been able to give information in a more precise form. But this I have not done, finding that it drew off my attention too much from the case itself." Dr. Jackson has some further observations upon note-taking:—"Of many cases, and even of all, it may be desirable to keep notes; but there are some evils attending this. If the notes are taken during the visit, they must be brief, often hurried, and then not worthy of reliance. If taken afterwards at home, many circumstances may be forgotten. Taken during the visit, they distract the attention, and the Physician puts his knowledge on paper without fixing it in his mind. We would desire that the Physician should give himself to the examination of his case, until it should become daguerreotyped upon his mind. This is not so likely to be done, if he is occupied with his pencil and his note-book."—P. 37. We have made these quotations because they afford us an explanation of the character of the volume before us. Dr. Jackson presents us therein with a few of those pictures of disease which prolonged and repeated observation, extended over more than half-a-century, have fixed upon his own mind; and, with a brief account of some of the methods of treatment which he has found, on the whole, the most successful in a variety of maladies which he alludes to. We can conceive few things, not excepting the minutely-recorded and numerically-estimated observations of younger Physicians, which are likely in themselves to be more valuable to the Practitioners of the healing art than the experience of such a veteran as Dr. Jackson. The following extracts will, doubtless, be acceptable to our readers. Dr. Jackson is writing upon epilepsy.—"I believe that, in a certain proportion of the cases of epilepsy, the disease is susceptible of relief, so as not to return without the operation of some powerful cause. This relief is not to be attained by any medicine with which I am acquainted, but by diet. The diet which I have directed with success, has been almost purely vegetable. I have directed an entire abstinence from flesh and fish, but have allowed the use of milk and butter, and occasionally of eggs. I have thought it necessary to use these last watchfully, that is, in moderate quantity, mixed with farinaceous substances, as in puddings, and at those times only when the health was at the best. I was led to use this diet gradually; I hardly remember by what steps. Under the use of it I have seen many recoveries; yet, in the larger proportion of cases, it has failed. But to this I must add, that I have not known an instance where the patient has ultimately recovered after trying this diet without success."—P. 67. He advises a similar limitation of the diet in warding off the repetition of slight apoplectic seizures.

Dr. Jackson's remedy for chorea is oil of turpentine. "The oil should be given in such doses as the patient can bear. In a very young child you may begin with five drops three times a-day, but the dose should be increased steadily until relief is obtained, if no objection occurs. . . . A child of 8 or 10 years of age will sometimes bear a teaspoonful for a dose. This remedy is successful, whether given early or late in the disease."—P. 86.

We are satisfied, from our own observation of the management of infants, that the following remarks are based upon sound practical grounds:—"When the mother has milk enough, it is safe to leave the child alone in the early months of its life; nevertheless, there is a convenience in feeding it with something else once a-day. The mother may sometimes be sick, and sometimes unavoidably separated from the infant; then some food other than her milk must be given; but if the child is not accustomed to the spoon or the bottle, great difficulty is apt to arise. It is, therefore, expedient to accustom it from the beginning to the use of the spoon; for the purpose now in view, a small quantity will suffice, say from one to four table-spoonfuls. This little meal should be given early in the day; for, if any uneasiness follows in the day-time, it is of much less importance than it would be in the night. . . At first, cow's milk diluted with three times its quantity of water is, perhaps, the best article."—Pp. 113.

Our author is convinced that in tonsillitis, "suppuration cannot be prevented by any treatment. I have noticed the disease (abscess in the tonsil) only to state this as the result of my experience. If you believe me, it may save trouble to your patients. Leeches and blisters only add to the affliction, and so do gargles. These cannot be properly used. The parts are too lame to permit of it. The only relief which art can give is by opening the abscess; and if this be attempted too early, it is unavailing."—Pp. 155.

Dr. Jackson insists very strongly on the value of exercise in the treatment of phthisis:—"Next to diet, and of all things most important, is exercise in the open air. This should be carried as far the vigour of the patient will permit; it should not be done rashly, but boldly. If possible, the patient should be made to have faith in it, for, without this, he is not likely to pursue it as far as he can, and then he will not derive from it all the benefit which it can afford."—Pp. 175.

We might go on till we had quoted the whole volume. We cannot wonder at the popularity it has attained.

GENERAL CORRESPONDENCE.

THE MEDICAL REFORM BILL.

[To the Editor of the Medical Times and Gazette.]

Sir,—Allow me to solicit space for a few observations relative to the Medical Reform Bill at present before Parliament.

Unquestionably it does not provide any remedy against one of the greatest abuses to which the science of Medicine is exposed, and which is at the same time one of the most prominent evils under which British society suffers, namely Quackery.

A registration of the qualified, unaccompanied by an efficient restriction upon the unqualified, is an inconsistency which must strike every one of ordinary intelligence. In France, an official, or state registry, is kept at every Prefecture, of qualified Medical Practitioners, not solely in the interests of the Profession, but in order to facilitate the conviction and punishment of offenders. Its principal object is to protect the population from the snares and impositions of charlatanism. The French law, for the public security, requires that those who prescribe for their fellow-beings, and hold their lives in their hands, should give guarantees of their knowledge and education. All persons not possessing a proof of such guarantees, or, in other words, a Diploma, render themselves amenable to justice for "*l'exercise illégale de la Médicine.*"

It is to be hoped that some philanthropist in the House of Commons will suggest a clause to make up for such an important omission.

Preliminary studies, freedom of legal practice throughout the United Kingdom, and uniformity in Medical education, are sure to be received as a boon by the Profession at large, whatever may be the opinion of Colleges and Corporate bodies.

By the 21st clause every Surgeon and Apothecary, up to the 1st day of December, 1856, applying for registration, is to be registered in books entitled "The Surgeon's Register,"

and by virtue of a Surgical diploma or Apothecaries licence. By the 27th clause any one applying for registration as a Surgeon, after the former date, must produce proof that he has been examined by and received letters testimonial from, a College of Physicians and a College of Surgeons. From the wording of these clauses it is evident that the term, or name, of Apothecary is intended to be dropped, and the title of Surgeon substituted, an arrangement which relieves the licentiate of the Hall from a false position, and gives him a professional status more in harmony with his education. The studies required from an Apothecary in England, and the privileges secured by his licence, gave to the designation a signification in England quite different from that attributed to it in every other country in Europe, for nowhere else does the name imply any connexion whatever with the theory and practice of Medicine and Surgery.

This new organization of medicine would render the existence of Apothecaries Hall superfluous as a Medical Institution, and it is to be regretted that, under such circumstances, no effort is being made to create a National School of Pharmacy. I do not find the Pharmaceutical department of medicine at all included in this measure of Mr. Headlam's, as a separate branch of Medical Science; yet no legislative reform in medicine can be satisfactory or durable which does not recognise Pharmacy as a distinct and essential element of the healing art. It may be argued, that custom, and the existing interests of general Practitioners, would stand in the way of such a division; but if pure Apothecaries were protected in their calling, their duties legally defined, and all encroachment upon the domain of Medicine and Surgery carefully avoided, the general Practitioner in that case would lose nothing; his Professional character would have become enhanced, his services more delicately estimated, and the public saved from a vast deal of unnecessary and mischievous drugging, a habit which I fear those unconsciously fall into who combine the supplying of medicine with advice, and of which I had some time ago a remarkable instance here:—A gentleman in general practice in London, and well known, came to Dieppe to consult with me in a case of typhoid fever, by which an English young lady and her two brothers had been attacked, and, to my great surprise, brought with him a quantity of drugs, almost sufficient for an entire parish, although he was completely ignorant of the nature of their illness before his departure. One of the patients had nearly fallen a victim to a large dose of scammony powder, secretly administered by the father, and left behind by his friend, without my knowledge.

The 45th Clause of the Bill says, "Nothing in this Act shall affect the lawful occupation of Chemists and Druggists." Now, no law in England defines or limits the occupation of Chemists and Druggists. With few exceptions, Chemists' and Druggists' shops are dens of Quackery, and the present prevailing system of immoral counter practice would become less scrupulous, and more daring than ever, by this indulgent clause. I have employed the word "immoral," for I know nothing more opposed to propriety and decency than ignorant persons examining patients, and entering into the details of human infirmity.

I find in your number for February 23, a speech of Lord Robert Grosvenor's relative to this Bill, in which His Lordship says, that a member of a Medical commission appointed to visit the different Hospitals of the Metropolis during the prevalence of cholera, declared that, if attacked by that epidemic, he would prefer being subjected to homœopathic treatment rather than to any other; and this brilliant conclusion was, we are informed, the result of his conscientious inspection of a Homœopathic Hospital. Permit me, through your columns, to lay before Lord Robert Grosvenor and the English public, the experience of others upon this identical subject.

In the number for October 1, 1855, of the "*Journal des Connaissances Medico-Chirurgicales*," and under the head of "*Homœopathie et l'Allopathie devant le cholera de Marseille*," I find a most instructive lesson. The following is the translation:—

"Mr. Editor,—Homœopathy has sustained a severe check in our city. You have probably heard of all the noise which it made last year about its pretended success in the treatment of cholera. In several hundred cases, Dr. Chargé announced not to have lost one individual; and this result he inserted in the public Journals of Lyon and Bordeaux.

"When this year the epidemic returned to renew its ravages, the authorities of Marseilles became alarmed, and considered it their duty to adopt means of arriving at the truth. They confided accordingly to Dr. Chargé one of the wards in the *Hotel Dieu*. There, aided by his colleagues in Homœopathy, by Pharmaciens, and some young disciples, who undertook the charge of the patients, that which it was easy to foresee took place,—he signally failed. Of 26 persons affected by cholera who had been received into that ward, 21 died, and the Doctor retired.

"In order that the experiment might be conclusive, they established another ward where the patients were treated by the usual remedies, '*par les moyens rationels*,' which have no pretensions to miraculous power.

"Of 25 patients thus treated during the same space of time, only 11 died.

"Each ward has its day of reception.

"I think that these facts are sufficiently decisive to prevent a recurrence to similar experiments; for if science profits by them, which is doubtful, humanity pays her tribute.—T. Bouquet, D.M.P." I am, &c.

Stephen S. Moriarty, M.D.

Dieppe, Faubourg de la Barre.
March 17, 1856.

[To the Editor of the Medical Times and Gazette.]

Sir,—Many of your correspondents appear to misapprehend the nature of the Medical Bill now before Parliament. They speak of it as legalizing quackery, not distinguishing between the active and the passive. They forget that quackery will be greatly discouraged by the loss of Medical titles. The advertisers will lose much of their charm when they lose the titles of "Doctor" and of "Surgeon." There will be no "Doctor-Coffin" or "Mr.-Marjoram,-Surgeon" advertisements after the Bill has become law.

Again, Mr. Isaacs and Mr. Solomons, and such like pseudo-Surgeons, with brass-plates upon their doors, will dwindle into a class like the ostlers that take the treatment of gonorrhœa into their hands. At present these pseudo-Surgeons take club appointments. All this will be changed. The Bill does not interfere with the lawful occupation of the Druggist. Certainly not. But what is the lawful occupation of Druggists? The Bill is framed under the present state of the law which makes Medical Practice illegal to persons that are not Licentiates of the Apothecaries' Hall. This clause in the Bill does not confer upon Druggists any right to practise. It rather reads the other way. Still the great feature of the Bill is to organise the Medical Profession, and to distinguish it by a sharp boundary-line from pretenders.

Thousands of persons are annually paying money to quacks unwittingly. They would not consult them if they did not believe them to be Doctors and Surgeons agreeably to their professions. Persons cannot understand that the Legislature should permit quacks to assume titles. The Legislature is now willing to step in between the Medical Practitioner and the pseudo-Practitioner. Shall the Profession lag behind in this question that so deeply concerns them?

I am sure that the Practitioners of this country do not fully comprehend the bearings of the case. They lean upon the Apothecaries' Act, and fancy themselves protected. Are they not under a delusion? The host of Quacks that abound everywhere, without let or hindrance, testify that the Practitioners are not protected by the Apothecaries' Act, or, at any rate, by the Apothecaries' Society.

I bear witness against the Society, that the Society would not prosecute illegal Practitioners, although desired to do so by me. No; the Apothecaries have not done their duty to the Profession in this important matter. On the other hand, the Profession will be truly protected by the Medical Bill from the assumption of titles, and the holding of club-appointments, and the certifying of deaths, and other public acts. The new Bill gives protection to a certain extent, most surely. The Apothecaries' Act holds a rod over illegal Practitioners; but the Apothecaries' Society takes care to flagellate *very rarely*, and, even then, to punish Surgeons rather than Quacks.

I am, &c.

Frederick J. Brown, M.D. Lond. and Edinb.

P.S.—If the Bill does not give entire satisfaction, still let it pass into law this Session; then improvements may be made in future Sessions. If we do not begin, we shall never complete the organization of the Profession.

[To the Editor of the Medical Times and Gazette.]

Sir,—May I ask the favour of your giving publicity to the following remarks, by one of your Scotch readers, upon the so-called Medical Reform Bill. Although I scarcely anticipate that you will agree exactly with my notions, still, in regard to a measure affecting the Profession generally, it is but fair, and may be useful, to let all sides be heard.

In the first place, then, I would object strongly to every measure that would involve us in any additional outlay in the shape of fees. Truly we have quite enough of that sort of thing already, considering the return that some of us, in the country at any rate, get for our services; besides, I cannot see that the "reformed" system of registration would be one whit better or more efficient than that at present existing. We are all duly registered, as it is, when licensed, and the registers are perfectly accessible for reference; and what more could be desired? If, however, the Legislature or the public demand further registration, let them provide the funds from the public purse. Some plan to reduce our outlay and increase the income would be more to the purpose; but that unfortunately is not the direction that "reform" has generally taken of late.

So far as the effect of the Bill would be to establish reciprocity of practice among the practitioners of the three kingdoms, I would, of course, most heartily approve it. The mystery to me is, that bare justice and common sense have not compelled such a reform long, long ago. But, then, this very desirable result might be accomplished by a far less complicated process than by the Bill under review. A simple declaratory Act, granting equal rights and privileges to all and sundry holding diplomas from any of the legally recognised licensing Boards of the United Kingdom (even "down to the Faculty of Glasgow," as one of your correspondents the week before last sneeringly expresses it,) would be quite sufficient.

I shall only at present add, that as it seems vain to expect to put down quackery in Medicine, more than in the Church or any other department, by Act of Parliament, and in these days of free-trade and liberty, it might scarcely be advisable to attempt it; it humbly appears to me of very little consequence what the Bill contains or omits on the subject. Quacks of all sorts there will continue to be, and geese to be plucked by them; and we must trust for keeping them in check more to an increased zeal on the part of the regular Profession in the investigation of disease, and the ready adoption of all the best means and appliances within reach for their cure, than to any Medical Reform Bill.

You will readily infer, then, from what I have said, the conclusion I have come to—that the sooner the present measure is withdrawn, and something more sensible and less complicated substituted in its place, the better.

I am, &c.

March 25, 1856. A Country Practitioner.

[To the Editor of the Medical Times and Gazette.]

Sir,—In order to strengthen the new Medical Bill now before Parliament, allow me to suggest the necessity of dividing the Apothecaries' Society into two parts; half of which should go to the Pharmaceutical Society, and the other half to the new Medical Bill. There is a clause or two now existing in the Apothecaries' Act, which might be advantageously introduced into the new Bill to prevent persons from practising. The power possessed by the Apothecaries' Act, has been most unjustly exercised. Quacks have been allowed to spring up like mushrooms throughout England, and no attempt has been made to put them down; and the poor as well as the rich are thus imposed upon. On the other hand, we occasionally see the power of the Hall exercised against a member of the College of Surgeons, for practising without the L.S.A., to the disgrace of the Profession. This, however, is not the only piece of injustice under the existing laws:—a Licentiate Apothecary has full power to practise Surgery, and all branches of the Profession, without the liability of prosecution by the College of Surgeons. Is this justice? What is the difference between the Professional education of these two men? It is this,—Every Student for the College is compelled to attend Medical as well as Surgical Practice of the Hospitals, and all the lectures required by the Hall and College; but the Apothecary is not compelled to attend Surgical Practice nor Surgical Lectures—hence he saves about £30, and in addition to this he also saves the expense of the College Diploma, which is £22, making about £50. I write from a known case.

The Bill in question is a liberal and just Bill, and deserves the support of every member of the Profession. It will prevent persons from practising with a single qualification for the future, and subjecting themselves to the unequal exercise of the law.

I am, &c.

One who holds a Double Qualification.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have not yet seen noticed in your columns, the palpable injustice that seems to me to be contemplated in the Medical Bill of Mr. Headlam, now before Parliament, in placing hereafter, on exactly the same footing, all Medical men now assuming to be General Practitioners, whether acting barely under one qualification, or none, or whether possessed of the highest attainable honours; for, as I understand it, every one who was in practice before 1815, or who has the licence of any Apothecaries' Company, or the diploma of any College of Surgeons, or even simply the high-sounding, but empty title conferred by the Faculty of Physicians and Surgeons of Glasgow,—lightly indeed esteemed on the spot, and, I believe, conferring no right or title to practise beyond a very short area round Glasgow,—all will be entitled to register, and thereafter rank equally with the best educated, as a legal and fully qualified General Practitioner, which has never yet been the case, and which certainly ought not to be now, none of these having any pretension to more than half the requisite qualification.

If such be the object and purport of this Bill, it is surely most unjust to all who have proceeded to the highest qualifications; and especially to those forming by far the bulk, and most respectable class of General Practitioners, who have deemed it necessary to secure both the Apothecaries' licence and the diploma of some College of Surgeons in the United Kingdom, such being now tacitly understood, and insisted on too, by the Poor-law Board, and other authorities, as essential together to constitute a respectable General Practitioner.

This Bill, however, practically ignores the merit of such double qualification as affording "the only evidence of competency, in each branch of the Profession," the very words I should say of the Apothecaries' Company in their objections to the Bill on other accounts (a), but wherein they have not failed also to notice very forcibly this "heavy blow and great discouragement" to us, albeit they can be no very partial witnesses, one would say, in such a case; and merging all pretensions to general practice in the one great fact of registration, to be opened equally, I repeat, to all in future, whether simply examined by a College of Surgeons, that repudiates Medicine, or by an Apothecaries' Company that pretends not to Surgery. One stroke of the pen sets up all such as equal to those who have undergone a separate and careful examination in Medicine and Surgery, and bids them pass in future before the public as legal and fully qualified, competent and trustworthy in all cases.

Thus is the great body of General Practitioners who have really studied and obtained proofs of deserving what the others have not attempted, deprived at "one fell swoop" of their hardly earned privileges. The rank and standing of such men is to be usurped by others, confessedly inferior, and their Practice opened afresh to the interpolations and rough competition of rivals, who, with precisely similar opportunities, have not chosen, or, as I know of instances, even in my limited sphere, have been totally unable to pass both examinations.

I know it is important, and only reasonable, to offer a wide and liberal opening in the introduction of a new era such as this promises to be, and am well disposed to be charitable, and not over-scrupulous in sifting the pretensions of any who desire to be enlisted under the banner of legitimacy thus unfurled; nor would I, by any means, depreciate the fair standing and pretensions of any class of men. But too much ought not to be expected of us whose bread depends on our success, and in maintaining the legitimate superiority we have really laboured hard to attain;—and, putting aside for the present public welfare, a matter yet of grave consideration; if it really is necessary to defer the interests of one class for that of another, the injury should scarcely fall on those who have deserved the best.

(a) See advertisement in *Medical Times and Gazette*, of March 15, 1856.

If, indeed, public justice, necessity, policy, or even simple convenience, required our humiliation or discomfiture in this case, I think we should not readily complain; but, rest assured, it is not so. I quite believe that, with very little alteration, the present Medical Bill of Mr. Headlam's may be so framed as to be almost, if not universally acceptable, and leave no solid ground of complaint.

I would suggest, in the first place, that a representative to the proposed Medical Council be given to the Apothecaries' Company of London, which, I believe, has none allowed at present; and this, if requisite, even at the risk of depriving the Faculty of Physicians and Surgeons of Glasgow of the one apportioned to them, under by no means equal pretensions. An opening should also, if possible, be made for one or two Examiners from the said Apothecaries' Company. Then, let all Medical men in general practice prior to 1815, without any qualification, very few of whom now remain—and all who have practised and intend to practise with only the licence of Apothecaries' Hall, be registered simply as Apothecaries; and those who possess only the diploma of a College of Surgeons be registered as Surgeons; or, if they prefer it, as Surgeon-Accoucheurs, with the understanding that the latter, that is, the Surgeon-Accoucheurs only, in common with the Apothecaries, are to have the privilege of visiting, prescribing, and furnishing their own medicine, and of recovering for the same respectively, in their own department; that is to say, the Apothecaries in Medical cases, and the Surgeon-Accoucheurs in Surgical and Midwifery cases only, each of which are now pretty well defined, and either to be subject to penalties if flagrantly trespassing beyond their limits. To such as have passed both the College of Surgeons and the Apothecaries Company's examinations I would reserve the right of practising and furnishing medicines for all cases indiscriminately, and for all branches, whether Medical, Surgical, or Obstetrical, and these in my opinion should practice under some distinctive name, such as Surgeon, Apothecary and Accoucheur, General Practitioner in Medicine, Surgery, and Midwifery, or, which I think better, and would soon become familiar and be perfectly understood, that of *Medico-Chirurgeon*.

Those Members or Fellows of the College of Surgeons, and in time this class should, I think, be confined to the latter, who prefer to register strictly as Surgeons, should rank accordingly, as pure Surgeons, and, in common with those registering as Physicians, be debarred from either directly or indirectly supplying medicines, and confined strictly to prescribing and consulting Practice.

Some such arrangement as this in the present Bill would, I feel confident, do justice to all, as far as it is possible, and reconcile many of the discrepancies and anomalies in the present qualifications. In practice, those here proposed to be registered merely as Apothecaries, or as Surgeon-Accoucheurs, would find their relations with the public and with their brethren very much the same as at present. If either of these now trespass on the domain of the other, and on that of the General Practitioner, it is not just or legal, although to this time allowed on sufferance; but they cannot recover in such cases, and this kind of poaching may no doubt be continued on either side with similar impunity under the new law as it has been under the old. The mere Apothecary will certainly lose his self-assumed title of Surgeon, which is really only fair, as he has no more right to it than the man who mends his shoes, unless he chooses to study for and attain it honourably.

As for the General Practitioners now acting under both qualifications, they will gain nothing by this proposed alteration but simple justice, which is all they ask; and I cannot but think, if the matter be fully explained to Mr. Headlam, especially by some one of influence who knows him, that he will have the Bill at once so modified as to remedy this great defect. If not, and if it is intended seriously to carry all out in its present state, and to sacrifice all our hopes and interests, I call upon you, Sir, to do all in your power to rescue us from this injustice. Give us, if you please, at once a form of petition, simple, of few words, and to the purpose; such as we can write out and sign, and forward at once, and singly, to any member or members of Parliament he may have influence with, or any acquaintance with, or whom he may even know only by name; and let every one of us who has an interest in preserving his rights, or in retaining his business, exert himself forthwith, and lose not a day, for time is precious. Every one should also strenuously exert his personal influence and that of his friends among those members of Parliament in their connexion, explain to them the gratuitous and uncalled-for injury we are exposed to; and, with a little sacrifice of time and trouble at the present moment, I have great hopes of success.

Trusting to your kindness to insert this, if you agree in the object of it, and consider it suited to your pages, and earnestly hoping, too, you will do all in your power to assist us,

I am, etc.

London, March 26, 1856. MEDICO-CHIRURGUS.

LEUCHÆMIA OF VIRCHOW.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have observed in the recent numbers of the *Medical Times and Gazette*, two anonymous letters concerning the claims of Virchow and Bennett, as to the discovery of the pathological condition known by the designations of *leuchæmia*, or *leucocythemia*.

It is one thing, Sir, to observe a morbid lesion; it is another to explain its pathological signification; and every one acquainted with the history of leucocythemia must allow that, though Bennett was the first to describe the microscopical appearances of the blood in that disease, Virchow was the first to explain their true nature.

Dr. Bennett's case, on which he founds his claims as to the discovery, occurred in the spring of 1845, and was published in the *Edinburgh Medical and Surgical Journal* for October 1st of that year. In the same number of the journal, a precisely similar case was described by Dr. Craigie, which had occurred in 1841. These two cases were certainly published before Professor Virchow's observations; but neither Dr. Craigie nor Professor Bennett recognised the true nature of the lesion which was afterwards enunciated by Virchow. Thus, Dr. Bennett gave the following title to his paper:—"Case of Hypertrophy of the Spleen and Liver, in which death took place from *Suppuration of the Blood*." In the paper, he stated that he agreed with Dr. Craigie in thinking that the "cause of death was owing to the presence of purulent matter in the blood." In his account of the microscopic examination of the blood, he enumerated various proofs that the corpuscles "really were" pus corpuscles; and, in his remarks upon the case, he entirely repudiated the probability of the corpuscles being the colourless corpuscles of the blood, on the ground, that "we know of no instance where they existed in the amount, or *ever presented the appearance, described*." He added, "there can be little doubt that they were true pus corpuscles."

In November, 1845, a month after the publication of Dr. Bennett's case, the first of a series of communications from Professor Virchow appeared in *Froriep's Journal*. In these communications Virchow brought forward a number of cases similar to those of Craigie and Bennett. He opposed, however, the theory, that the appearances observed were due to pus in the blood, and showed that the corpuscles were identical with the colourless blood corpuscles, the increased number of which he attributed to the enlargement of the spleen, adopting the well known views of Hewson and Donné as to the functions of that organ. He proposed for the disease the name *leuchæmia*.

In the *Edinburgh Monthly Journal of Medical Science* for 1851 and 1852, and afterwards in a separate work, Dr. Bennett published a number of cases similar to the previous ones. In these publications he rejected the explanations which he had given to his case of 1845, adopted the view of Virchow, but objected to Virchow's name—leuchæmia, and substituted that of leucocythemia.

To Dr. Bennett and Dr. Craigie certainly belongs the merit of having published the first cases of white-celled blood, but they did not recognize the pathological signification of the appearances which they observed. To Dr. Bennett also belongs the merit of having greatly extended our knowledge of the disease in question. Every one, however, must admit, that to Virchow is due the discovery of a condition of the blood characterized by an increased number of the white corpuscles, and accompanying hypertrophy of the spleen, and that it is he who has given this disease a place in pathology. Any one will be satisfied of this who will take the trouble to read

Professor Kölliker's letter on the subject, and Dr. Bennett's reply, published in the *Edinburgh Monthly Journal* for October, 1854. I am, &c.

Charles Murchison, M.D., M.R.C.P.L.,
Demonstrator of Anatomy, St. Mary's Hospital Med. School.
21, Upper Seymour-street, Portman-square.
March 26, 1856.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall be ready to answer the question of your Correspondent "L. O." when he informs me what pathological condition Dr. Bennett did discover? I have no desire to enter into any controversy—especially an anonymous one—on this subject, but I did feel it to be a duty, seeing the manner in which Dr. Bennett is for ever touting this and his other supposed discoveries, to remind your readers of the real discovery, and who is the real discoverer.

No doubt, in March, 1845, Dr. Bennett saw a case of Leuchæmia; but, as has frequently happened to better and abler men than himself, he misapprehended it; and, from that time up to April, 1850, he continued in a state of blessed ignorance regarding its real nature. This he has himself admitted (see my former letter.) Meantime Virchow had, in August, 1845, seen a case, and apprehended it.

Such is the essential difference between these two observers. I say essential, because, no doubt, there are minor points in the history of the discovery of Leuchæmia which require to be cleared up. Here is the opinion of an able reviewer in the ablest of British Medical periodicals:—"It must be borne in mind that Professor Virchow has not only thoroughly investigated this condition (Leuchæmia,) but was also the first that recognized the true nature of the corpuscles which, from Dr. Bennett's first case (and second case in 1850,) were believed to be pus cells."—(British and Foreign Medico-Chirurgical Review. April, 1855.)

"L. O." very ingeniously endeavours to tempt me into a controversy as to the exact nature of the corpuscles met with in Leuchæmia. Admitting that a difference of opinion upon this point may exist (though none as to the corpuscles not being pus-cells, as Dr. Bennett thought,) and that the question is still an open one—no one can doubt that the thorough, and independent, and original investigation of the whole subject which Virchow made in 1845, entitles him to rank as the discoverer of Leuchæmia; while, without detracting from the merit (by no means small) due to Dr. Bennett, the fact of his remaining from 1845 to 1850 uninformed, and to all appearance unconcerned, about the question, will not permit us to rank him as anything more (*quoad* originality) than the proposer of a new name for the condition Virchow discovered;—(or rather the introducer of a new syllable,)—a very jaw-breaker; but of which, as no one but Dr. Bennett has ever dreamed of using it, we need take no further care. I am, &c. E. T.

March 24, 1856.

TRACHEOTOMY IN CROUP.

[To the Editor of the Medical Times and Gazette.]

Sir,—I accept as a very high compliment rather than as a taunt, of all others the most injurious to a Professional brother, the opinion about my being an "adroit speculator and theorist," made by Mr. Henry Smith in your last number: for it is an undeniable fact, that no man who has worked heart and soul in science, or has passed a step out of the slough of routine, or done anything likely to live beyond the short hour in which it was done, has ever as yet escaped the same imputation.

If, however, I understand myself,—rather a difficult matter it is true,—theory and speculation are both entirely opposed to my views and feelings. I am certainly adroit at neither, and have never as yet tried my hand at either the one or the other.

In regard to fibrinous concretions, their formation and effects, it has been my chief business to educe three leading points:—

1. That these concretions are, in many instances, *absolute tubes*, shaped like the vessel or concavity in which they are formed, and grooved by blood currents.

In supporting this view, I have broached no theory; but have, over and over again, at the Medical Society, exhibited the concretions thus grooved and formed, as affording direct demonstration that they must have been laid down for some time previous to death.

2. That, under certain physiological conditions, which admit of being produced artificially in the inferior animals, the specific symptoms indicative of the presence of concretion may be induced; and that, when these symptoms have presented themselves, if the animal operated on be suddenly rendered insensible, and have its thorax and heart at once laid open, the concretion may be found in the heart while yet the walls of that organ are contracted rigorously, and, should the operator be skilful, within one minute after the production of insensibility. This is fact, and is removed direct from theory. It proves more decidedly than has ever yet been done, that fibrinous concretions may be laid down in the circulatory system during life, under the influence of modified physiological laws.

3. I have pointed out, that during certain modified physiological conditions occurring in the human subject the formation of a fibrinous concretion in the heart may afford unmistakable points of diagnosis, which are so easily read off by any one who will look at them, that the suspicion they excite as to the presence of concretion shall, in nine cases of ten, be confirmed by the post-mortem examination. In this statement there is no more of speculation than there would be in stating that pneumonia may be detected by a crepitant noise, or a stone in the bladder by the stroke of a staff.

In regard to croup and the operation of tracheotomy, my argument is common sense enough, and is not likely to be overturned. It amounts simply to this:—The operation of tracheotomy is useless in all cases of croup where the chest is filled with moderate freedom at each inspiration, where the stethoscope cannot detect any special or limited point of obstruction in the windpipe, where the lungs are emphysematous, and where the gasping and other symptoms are those of failure of the circulation.

In other cases, where the obstruction in the main air-passages is marked, where an opening can be made beneath the point of obstruction, and where the circulation is free, the operation is the saving clause.

In these remarks, I simply draw out a point of diagnosis from bedside-observation alone. That there is some other cause of death than mere obstruction in the windpipe in many cases of croup, is obvious, from the very fact, that the operative skill of Mr. Smith, which all who know him must admit to be of a high order, has never yet been blessed with success. Nor will it ever be, until he condescends to step from his supreme practical Surgical position to the sounder, though less brilliant, one of carefully diagnosing between the symptoms of arrested circulation and those of arrested respiration.

Mr. Smith considers such diagnosis "speculative," and thinks that the performance of the operation is the point of practice, and nothing else. On my part, I submit that this haphazard, must-do-something line of practice, though it is in accordance with wretched routine, is, of all plans, the wildest, most speculative, empirical, unsound, unsatisfactory in its results, and discreditable to true science.

Mr. Smith implies, that as yet I have not shown that, in a certain proportion of cases of croup, death occurs from fibrinous deposition. To this I answer, that I have many times reported cases of croup in which the symptoms were those of arrested circulation; that in these cases, the presence of concretion in the right side of the heart was diagnosed before death; that the post-mortem confirmed the diagnosis; and that the concretions in the grooved or tubular form in which they were found have been shown to the members of the Medical Society. More than this one individual cannot do; but if what such an one says should evoke any feeling on the part of others contrary to opinions which they have previously held, it is their duty honestly to inquire from nature, whether the new statement be true or false, not to deny it point blank, and refuse to observe.

It is no business of mine to offer suggestions to Mr. Smith, for whom I feel the highest esteem. But I do earnestly beg of him, when next a case of croup comes under his operative hand, that, for the sake of humanity as well as science, he will consider for a moment or two what the symptoms really are which lie before him,—whether they are those of syncope or suffocation. The distinctions of the two are broad, and to observe between them cannot for more than once do violence

to his practical sense; so that the request is really not overbearing. If he accedes, he will not regret the result. If he resolutely objects, there is, of course, as far as he is concerned, an end both to controversy and to progress on this disputed point. I am, &c. B. W. Richardson, M.D.

12, Hinde-street, Manchester-square.

DR. E. SMITH ON PHTHISIS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Will you permit me to make a few explanations or corrections of certain parts of the abstract of my paper on the hourly pulsation in Phthisis, which appeared in your columns last week.

The abstract states, "that the rate of the pulse was increased if the patient rose earlier than usual." It is proper to add, that early rising caused increased pulsation in the morning, and decreased pulsation in the after part of the day, and on the day taken as a whole.

Again, it states, "As day-sleep does not depress the pulse so much as night-sleep, the perspirations may be somewhat prevented by curtailing the former, and encouraging the latter:" it should have read, "by curtailing the latter, and encouraging the former."

The paragraph which reads "with the increased ratio of *perspiration*," should have read "with the increased ratio of *respiration*." I am, &c.

Edward Smith.

63, Grosvenor-street, Grosvenor-square.

REPORTS OF SOCIETIES.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

January 24, 1856.

(Communicated by the Hon. Secretary.)

After the usual proceedings it was proposed that the principal Medical Officers of Divisions be elected honorary members, and that they be requested to inform the Medical Officers of their divisions, that we shall be most happy to see them at our meetings, and to make them honorary members of the Society, should they wish to join us. (Carried unanimously.) It was hoped that the Medical Officers of the other Divisions would not consider that we wished to assume a position over them, for although we did not originate such a society, we were the first to bring it into practical operation; that we should all mutually assist each other, the true objects of the Society being the diffusion of Professional experience.

Mr. Barry, 13th Regiment, then read a paper on

DIARRHŒA IN THE CRIMEA,

chiefly as to its nature, last summer. The question was, Does the diarrhœa of the Crimea differ from that of other countries? Is there a species of it indigenous or endemic to this part of the Crimea? He should say not at all so, in opposition to Dr. Lyons' Report. Diarrhœa is the same disease all over the world, arises from the same exciting and predisposing causes, presents generally the like symptoms, and demands similar treatment, allowing, of course, for idiosyncrasies and other modifications. He then read his letter in reply to the Circular from the Director-General on the subject, mentioning his experience in the 13th Regiment from their landing in the Crimea on the 1st of July, 1855, in a very healthy condition. Before the 30th of September they had no fewer than 542 admissions of diarrhœa; his opportunities of observing the disease were ample, and his experience does not agree with Dr. Lyons', that in the majority of cases there was no pain, and that the principal inconvenience arose from the frequency and continuance of the purging; in two-thirds of the cases there was more or less pain and griping; there was not usually feverishness, but the loss of appetite he considered an ordinary symptom of the disease; and, with reference to that which was regarded by Dr. Lyons as the most remarkable feature, "the almost total suspension of the digestive, assimilative, and absorbent functions," although in daily practice of examining the ejecta, he did not notice such to be the case: the evacuations were loose, watery, dark, and fetid, except such as were choleraic, scarcely containing any solid matter; and, in his opinion, were the result of irritation of the lining mucous membrane of the bowels, arising from morbid secretions, and such as he had the opportunity of observing during seven years in India—such as occur in all troops recently arrived in hot climates, and exposed to the baneful influences of the sun by day, the dews and chills of night air, and heavy fatigue. The disease was identical with that of which he had seen some thousands, and presented no Crimean peculiarity. He had tried quinine, but did not find it succeed. The administration of ipecacuanha with opium, in large and repeated doses, he regarded as of almost universal application in diarrhœa and dysentery. Who ever saw a regiment land in India in which it did not become epidemic? It is the various surrounding influences which render the disease so common, and, as the process of acclimatization advances, so does the diarrhœal tendency diminish—the intensity of the malady being in proportion to the amount of noxious exposure. He then gave some statistics, which proved that the disease rapidly disappeared in proportion to the reduction of duties and improvements of rationing, and that he considered himself justified in stating, that hygiene and acclimatization had immense influence on the disease, and that the disease was the natural consequence of the exposure soldiers were liable to. In the diarrhœa of last summer there were certainly some cases without pain, but too few to enter into the calculation of prominent symptoms, or diagnostic marks of the disease; the prognosis was generally favourable, though it sometimes ran into cholera. With reference to treatment, he has not found quinine of advantage, although many first-rate Practitioners hold a different opinion. Has long considered ipecacuanha as the great remedy in bowel affections; Dover's powder is convenient, but he prefers larger and more frequent doses than can be thus given. Ipecac. gr. ii. and opii gr. i. can be given four or five times a-day without either producing vomiting or somnolence, but this treatment is more applicable to dysentery. Perhaps Dr. Lyons may not have intended his remarks for the period to which he refers (the last six months), or may have had a larger and wider field of observation. He gives the experience of his own regiment alone, and is open to all that may be advanced by others, and speaks but in the spirit of Professional inquiry. Are we to have new species of diarrhœa engrafted on our already overburdened nosologies? Are we, from each territory to which circumstances may carry our troops, to have a fresh diarrhœa and a new type of fever? He trusted not; rather let us generalize our doctrines, and be contented with the old familiar forms, which experience teaches us to recognize as the prevailing type all over the world.

Mr. Thornton, 9th Regiment, said, that the subject having been brought forward by Mr. Barry, he had also intended directing their attention to it whenever his duties as their Secretary would have given him time, and thanked Mr. Barry for saving him some labour. It was as one of the anomalous forms of fever that he had intended noticing it, and one which we so often meet with in tropical practice. They were all aware of Dr. Lyons' description of what he states to have been a prevalent form of diarrhœa in the British Camp. He for one had never seen it, and they must all allow that if such a form of diarrhœa had been prevalent in the camp, he was in a position to have met with it. He then read extracts of his report to the Circular on the subject, that "Dr. Lyons is only correct so far as relates to the absence of pain, and the apparent (?) suspension of the digestive functions: but from my experience of the disease, I must deny the absence of feverish symptoms for I considered it and treated it as one of those anomalous forms of intermittent fever,—that it, like hysteria, often presents the most extraordinary characters. There is one peculiarity about the tongue, that is, its preternatural cleanness, without at the same time exhibiting what is so well known as the dysenteric tongue; there is a peculiarity about the pulse which must be felt to be understood,—it is slow, soft, and weak. I have remarked in the early stages a distinct periodicity generally about daybreak, but which gradually passed away as the bowels 'got the habit of frequent relief.'" He then said, his general treatment was a combination of Dover's powder, quinine, and hydrg. c. cretâ, three or four times a-day, one taken more especially at daybreak or on first

awaking; this he found to have the most decided benefit when carried out, as it postponed the return of the diarrhœa, and broke through the periodicity of the disease,—rest and nutritious diet did the rest. He had met this form of ague—as he believed it to be—in Hong-Kong, Bulgaria, and in the Crimea, and considered its form depended principally on the endemical tendency to disease of any particular organ or tissue; thus, when bronchial affections prevail, you will probably find it take the form of pleurodynia, or again in anomalous rheumatic pains, or that well-known and painful disease of brow-ague. He was, therefore, of opinion that the true treatment of this form of diarrhœa is the administration of quinine in combination with other medicines, having a due regard to the periodic exacerbations, and the organs more immediately affected. He had also met with the form of diarrhœa so well described by Mr. Barry, and quite agreed in his views of that disease; but the form he alluded to was the only "painless" one that he had met with, and supposed it must have been to that form Dr. Lyons referred.

Dr. Atkinson had met with much diarrhœa, such as was described by Mr. Barry; he had found quinine useful in the latter stages, but had not seen the disease as described by Dr. Lyons.

Dr. Robinson thinks that Dr. Lyons alluded to the form of scorbutic diarrhœa, which was prevalent last winter, but of this form his description is not correct; had tried quinine, but considered it inefficient, and thought that the improvement depended on an improved state of the general health; he found most benefit to be derived from the vegetable acids.

Dr. Wyatt asked, if the period referred to by Dr. Lyons was known. He supposed it to be during last summer.

Dr. Robinson considered it was the prevalent disease of the winter, and that it was the scorbutic diarrhœa.

Dr. Blenkins considered that he referred to the prevalent form of diarrhœa, as described by Mr. Barry; and he agreed with him in considering it a common, and not peculiar, form of disease, that it is met with both in the tropics and Australia, and that quinine is not the proper treatment for this diarrhœa. With reference to Dr. Lyons, he cannot conceive how he could offer a report so contrary to the facts, as that the diarrhœa was going on a long time without constitutional disturbance; it is not what he expected from him. He also stated that there was no functional derangement; and Dr. Lyons, being the Pathologist of the Army, appears to consider that we do not pay sufficient attention to the subject. The foundation of all treatment is first to discover the cause. He considered it a mucous diarrhœa, and the urgency of the symptoms is only the irritation, as in other catarrhal affections. The diarrhœas are generally not painless, but Dr. Lyons' description is very modified. We shall here have diseases discussed by the persons who have practical knowledge on the subject, and will not require those Civil Practitioners to go home and write our experiences. He did not think quinine a valuable remedy in diarrhœa; has tried it several times. Where there is a distinct periodicity, it would be of use; but he has not observed such cases as mentioned by Mr. Thornton; does not consider Dr. Lyons an accurate observer, and is of opinion that we are the proper persons to be referred to on prevailing diseases, or any other Medical or Hygienic subjects relating to the army.

Dr. Lawrence thinks that Dr. Thornton gives too much importance to quinine. Dr. Lyons cannot have had an attack of diarrhœa while here, or he would not say it was painless. The diarrhœa of last winter was scorbutic; had found Dover's and grey powders very useful in Bulgaria.

Dr. Wyatt said, the difference between Messrs. Thornton and Barry was the periodicity. Dr. Lyons' duty out here was to investigate the diseases of the Crimea. There was a total absence of pathology in the portion of the report we had seen.

Dr Blenkins said, that Dr. Lyons considered it a functional disease, and had got his information second-hand.

Dr. Deeble asked, if the whole of Dr. Lyons' report was in the Crimea, and if it would be possible for them to see it. However, if they were to judge of it from what they had seen, it could not be of much importance. He said there was pain in almost all cases.

Dr. Elkington had tried quinine in Bulgaria, but found it failed when given by itself, but when combined with Dover's and grey powders, it did very well.

Mr. Jessop had found quinine to answer very well in the latter stages. The quinine was useful in cases with cleanness of tongue.

Mr. Herbert was of opinion with Mr. Thornton, that this unpleasant disease does take on a periodic character in some localities; had observed it in the Crimea; more especially on the Spanish coast of South America, at Chagros, Navy Bay, and Greytown. New-comers were almost invariably attacked, without much pain. The attacks were chiefly early in the morning, for four or five hours, and free for the remainder of the day. The chief peculiarity was, that if not immediately attended to, it passed into the remittent or severe intermittent fever of that unhealthy climate. His principal remedy was blue pill gr. x. and quinine gr. v., immediately; repeating the quinine, in doses of 2 or 3 grains, every four hours, and blue pill again at night. This would generally check the disease, but, should fever come on, quinine was the only remedy. Had also much experience of the disease in Australia. There quinine was decidedly objectionable. He had met in his cases with pain, and considerable tenesmus. Ipecacuanha, opium, and hydrarg. c. cretâ, proved most beneficial.

Dr. Rodgers considered when quinine did good in combination, that he ascribed the good to the other remedies. The diarrhœa was not painless, as there was always a dull pain in the stomach. He preferred the Dover's and grey powders.

Mr. Robinson said, the quinine disagreed in the winter.

Mr. Thornton considered there were three different forms of diarrhœa:—that mentioned by Mr. Barry, the scorbutic, and that described by himself. He had seen and treated each, but the treatment required differed in each case.

Dr. Blenkins said, we all agree with the use of quinine in combination.

Mr. Jessop said, the cases in which he gave quinine were without pain.

Dr. Robinson mentioned the pathology of a case that had been long under treatment. The man died from gangrene, after frost-bite. The solitary and other glands were enlarged, the mucous membrane softened and congested. This man had a remarkably large appetite.

Mr. Thornton, in reply to a question as to the pathology of his cases, said, that in the form he mentioned, he had no fatal cases.

Dr. Williams said, that diarrhœa was a most important subject. To-day, we had powerfully dwelt on Dr. Lyons' view of this disease, as he saw it in the Crimea—he was not there a sufficient time to confirm or deny his assertions—but few elsewhere have seen more of the disease than he had, both in the West Indies and in Ceylon, and has never seen it put on the form mentioned by Dr. Lyons—but abroad, and particularly in the East, he has observed what Mr. Thornton has alluded to. Periodicity in this disease is most remarkable in delicate females, and, no matter what was tried, all was useless until an antiperiodic was given. Before speaking of treatment he must acknowledge that, until we arrive at a more correct knowledge of its origin, we can do little but experimentalize or follow in the beaten track; but when through Pathology we find out certain truths, then our practice will be definite.—What is diarrhœa? Many will tell you, disease of the mucous membrane. He is inclined to think this is secondary, and perhaps dependent on the secretions of the liver. When the eye is inflamed, our great object is to keep it clean: so also should we pay attention to the mucous membrane of the intestines; keep it free from irritative matter by large, very large injections of tepid water, combined, as circumstances may dictate, with infusion of ipecacuanha, mild astringents, etc. Relieve also the portal system by a few leeches to the anus. Had found ipecacuanha most serviceable in larger doses than are usually given; it acts in a peculiar way both on the liver and intestines; combined it sometimes with hydrarg. c. cretâ, taraxacum, Dover's powder, opium, etc.; and we should generally find that, when combined with gentian, it prevented nausea. Quinine is invaluable, but never alone, as it frequently irritates even healthy intestines. In those periodic cases which in Ceylon generally come on every morning about 5 o'clock, and lasted till 10 or 11, he gave, every hour, quinine gr. iii., opii gr. ½, ipecac. gr. i., ext. gentian. gr. ii. He commenced two or three hours previous to the expected attack, first washing the bowels well out. It was at first very disagreeable to the patients, they being awakened at one or 2 o'clock at night; but, after four or five days' treatment (each day), they were

well repaid by the bowels resuming their healthy character. Quinine with iron and taraxacum completed the cure. In continued chronic diarrhœa there are few remedies which surpass nux vomica: it gives tone to the intestines—say, nux vomica gr. ¼, opii gr. ½, three times a-day. He is indebted to Dr. Stokes for this remedy, and has frequently prescribed it with the greatest success.

Dr. Blenkins asked whether there was the preparation of nux vomica (extract) referred to in store? and said that he would try it. Highly approves of the free use of lavements.

Mr. Ovens found the greatest efficacy from the use of castor-oil and opium in this disease.

The thanks of the meeting were then given to Mr. Barry for his paper.

TO THE MEMBERS OF THE MEDICAL PROFESSION IN GREAT BRITAIN.

Gentlemen,—I entreat you to exert yourselves to the uttermost, in order to obtain an efficient, beneficial, and comprehensive measure of Medical Reform. Now is the time for your united and energetic co-operation. I therefore beg leave to direct your attention to the following points:—

1. That a clause be inserted into the New Medical Reform Bill, to prevent and to punish all illegal pretenders to Medical skill.

2. That the New Medical Reform Bill be so framed, and the Medical Council thereof so constituted and modified, as to represent and protect the privileges, rights, and interests of every legally qualified Medical Practitioner, and of every University, College, and Hall, in the United Kingdom, as well as to maintain the honour and dignity of the Profession generally.

3. That a standard curriculum of Medical education be adopted throughout the United Kingdom, which may be improved from time to time, as circumstances seem to require.

I am, &c. E. Wilkinson, L.R.C.S.E. and L.S.A.

Aspatria, Cumberland, March 22, 1856.

N.B.—I also think that it should be enacted, that the College of Physicians publish a Manual of the Practice of Physic; the College of Surgeons, a Manual of Surgery and Anatomy; and the Apothecaries' Hall, a Manual of Materia Medica and Pharmacy, every five years, for the use and guidance of Medical Practitioners throughout the United Kingdom.—E. W.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

Clutton.—At a meeting of Medical Officers of this Union, present Messrs. F. Crang, R. Boodle, T. D. Perrin, and J. H. Tackman, it was unanimously resolved,—That, 1. "A vote of thanks of the Medical Officers of this district be due to Mr. Griffin for his movement in the cause of Medical Reform." 2. "That Mr. Perrin be appointed Secretary and Treasurer, for the purpose of forming funds to support the nterest of the cause in this neighbourhood." 3. "That each member, for the present, subscribe 5s., and make such further payments as occasion may require." 4. "That while this meeting agrees with the general objects of Mr. Griffin's movement, it considers that that part of its plan of Medical relief which allows paupers to choose their own Medical man, most highly objectionable, for many very obvious reasons; it is also of opinion that Midwifery should always be considered and charged for as an extra." 5. "That a copy of these Resolutions be sent to Mr. Griffin and the Journals."

Plymouth.—At a meeting of the Medical Officers of the Plymouth Incorporation, held at the house of Mr. Stevens, Surgeon to the Parochial Infirmary, on March 18, 1856, present—Mr. Stevens in the Chair—Messrs. Harper, Jago, Derry, and Dale, it was resolved, *nem. con.*:—1. "That the thanks of this meeting be tendered to R. Griffin Esq., of Weymouth, for his exertions in the cause of Poor Law Union Medical Reform." 2. "That the Medical Officers of this Incorporation do form themselves into a local Association, for the attainment of this desirable object, and that Mr. Harper be requested to act as honorary Secretary and Treasurer." 3. "That a subscription of 5s. per quarter be paid by each member of the Association." 4. "That this meeting without pledging itself to details, approves generally of the main principles laid down by Mr. Griffin in his circular." 5. "That a copy of these Resolutions be sent to each of the weekly Medical Journals and to Mr. Griffin."

Wells, Somerset.—At a meeting of the Medical Officers of the Wells Union, held at Glastonbury, on Friday last, it was unanimously resolved:—1. "That although the Officers of this Union have, owing to recent alterations, less individual cause for dissatisfaction than heretofore, they cordially thank Mr. Griffin for his exertions in the cause of Poor-Law Reform; and beg to express their sympathy and co-operation with his endeavours to place the whole system of Medical Relief on a more just and satisfactory basis." 2. "That each Medical Officer of this Union do now subscribe 5s., to be sent to Mr. Griffin, as a small donation towards the expenses of the movement." 3. "That a copy of these Resolutions be sent to Mr. Griffin, and to the Medical Periodicals."

Henry W. Livett, M.D., M.R.C.S., Chairman.

Dulverton.—At a meeting of the Medical Officers of the Dulverton Union, held on the 24th instant, it was resolved:—1. "That this meeting tenders its thanks to Mr. Griffin, of Weymouth, for his able exertions in the cause of Poor-Law Medical Officers, and acquiesces in the general principles which he advocates." 2. "That the undersigned Medical Officers of this Union constitute a local Committee in aid of the movement originated by Mr. Griffin, and that Mr. John B. Collyers act as Secretary, with power to raise a subscription to defray incidental expenses." 3. "That a copy of these Resolutions be forwarded to Mr. Griffin, and the Medical Journals."—(Signed)—C. P. Collyers; James Nicholls, M.D.; John B. Collyers.

Kington, Herefordshire.—At a meeting of the Medical Officers of the Kington Union, held at Kington, March 25, 1856, present:—Messrs. Wm. Blakely, Kington; E. Bennett, New Radnor; and E. Foote, Kington; Mr. W. Langston, also attended, and took part in the proceedings: it was unanimously resolved:—1. "That this meeting pledges itself to support the movement commenced by Mr. Griffin, for improving the position of, and obtaining a more adequate remuneration for Union Medical Officers." "2. "That a subscription of 2s. 6d. per quarter, be entered into to defray the necessary expenses." 3. "That Mr. Foote be requested to act as local Secretary and Treasurer." 4. "That the cordial thanks of this meeting be tendered to Mr. Griffin, for his energetic exertions on behalf of Poor-law Union Medical Reform. 5. "That a copy of these Resolutions be forwarded to Mr. Griffin and the Medical Journals."

Alton, Hants.—At a meeting of the Medical Profession residing in the Union of Alton—present, Charles Jones, Esq., W. Curtis, Esq., L. Leslie, Esq., and Dr. Burnett—held on the 24th of March instant, at Alton, for the purpose of taking into consideration the present state of the Poor-Law Surgeons, it was resolved,—1. "That this meeting approves of the movement set on foot by Mr. Griffin, of Weymouth, for the better regulation of the Medical relief of the Poor, and promises its co-operation, as far as regards the general principle of the movement." 2. "That the Medical Officers do form a Local Committee, and that Mr. Curtis be nominated Secretary." 3. "That a subscription of 5s. per quarter be paid by each Medical Officer." 4. "That the thanks of this meeting be tendered to R. Griffin, Esq., of Weymouth, for his exertions in the cause of Poor-Law Medical Reform." 5. "That a copy of these Resolutions be sent to Mr. Griffin, and to the Weekly Medical Journals."

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding the Return of Sick for the Week ending 16th February, states that—

The sanatory condition of the Army continues most satisfactory. Indeed it could scarcely be excelled, and the mortality at present is under that of the Household Cavalry in England, which is a body of men as well taken care of as any troops in the world.

During the present week no casualty has taken place in either the 3rd, Light, or Highland Divisions.

The 1st, 2nd, and 4th Divisions have lost one man each; and four have died in the Artillery, making a total of seven, or a ratio of mortality of 0·01 per cent to strength.

Taking the last eight weeks, the ratio of mortality has only been at the rate of 15¾ per thousand per annum, which is considerably under that of the Foot Guards when doing duty in London.

The above calculations are exclusive of the Land Transport Corps; and, excluding them this week, the admissions to strength have been 2·02 per cent: sick to well 4·36 per cent.

Including the Land Transport the admissions have been 2·21 per cent.

Deaths	0·02 per cent.
Sick to well	4·56 ,,

Fevers and Pulmonic affections are the most prevalent complaints, but diseases of the Stomach and Bowels have considerably decreased.

There is an apparent increase under the head of ophthalmia, but this has been occasioned, in part, by the transfer of cases from the Regimental Hospitals in camp to the General Hospital at the Monastery. It is a curious, but not an uncommon thing, when ophthalmia has prevailed in regiments for any length of time, to find that one eye is apt to suffer more than the other; and in the present instance, out of 64 patients in the General Hospital at the Monastery, 19 have the right eye affected, 38 the left eye, and 7 both eyes. The form of disease at present prevailing does not appear to be of a serious character; and vision has neither been lost nor seriously impaired in any case that has come under my notice.

The 14th, 55th, 56th, and 97th regiments have had more cases than any other regiments in camp.

In the Land Transport there has been an increase of admissions this week; and, although the mortality only amounts to six, there are many very serious cases of fever under treatment, in some of which death is inevitable.

The divisions of the Land Transport at head-quarters suffer more disease than those doing duty with the divisions of the Army. But this is accounted for by all new arrivals being stationed at the head-quarters of the corps for a time.

The Hospital establishment at the head-quarters of the corps consists of 10 Hospital huts, and is on a respectable footing as to equipment and supplies; it is believed they are in want of nothing that is essential to the comfort and welfare of the sick.

Return of Sick for the week ending the 1st instant:—

The amount of sickness has not increased. Eleven casualties have taken place in the Hospitals of the Line since last Report. One man was suffocated in a state of intoxication, out of Hospital, and an officer, Major Rankin, of the Royal Engineers, was killed at the blowing up of the Dock-yard Barracks.

The whole army continues to enjoy unusually good health, both in front of Sebastopol, at Kertch, and in the Bosphorus.

The patients in the Land Transport Hospital are improving, but, as yet, there is no diminution in either the mortality or number of sick.

The admissions to strength this week, including the Land Transport, have been 2·06 per cent.; deaths to strength, 0·04 per cent.; sick to well, 4·46 per cent. At Kertch, in the week ending February 23, no death occurred out of a force of 1082, and the proportion of sick was only 3·51 per cent.

The Cavalry Division in the Bosphorus, for the same week, lost one man out of a strength of 5674, and their ratio of sickness was 6 per cent.

The weather during the week which has just elapsed has been variable; at the commencement it was mild, but on the evening of the 27th of February, a heavy snow-storm set in from the south-west, which covered the ground to the depth of between 3 and 4 inches, and the warm sunny days we have since had have not been able to melt it entirely; but it is fast disappearing, and snowdrops and crocuses are beginning to enamel the ground indicative of returning spring.

Medical Society of London.—At the Anniversary Meeting of this Society, on March 8, the Fothergillian Gold Medal was presented to Dr. Burke Ryan, for his Essay on "Infanticide;" and Silver Medals to Dr. W. Smiles and Dr. T. Herbert Barker, of Bedford, for services rendered to the Society, and for a paper read to the Society on Cystic Entozoa in the human kidney, respectively.

APOTHECARIES' HALL.

Names of gentlemen who passed the Preliminary Examination in Classics and Mathematics, March 18th and 19th, 1856:—

Books.—*Greek.*—Gospel of St. Matthew.
,, ,, Homer's Iliad. Book IV.
,, *Latin.*—Horace. Odes. Book I.
,, ,, Cicero de Amicitiâ.
,, Euclid. Book I.
,, Arithmetic and Algebra.

Bache, W. H., Edgbaston, Birmingham.
Barham, H., Maidstone.
Bastian, H. C., Falmouth.
Batten, W. S., 13, Cheyne-walk.
Brettell, J., Brierly-hill.
Bright, J. A., 12, Cambridge-square.
Brown, A. B., 16, Connaught-square.
Cann, F. M., Burton, Somerset.
Cape, J. T., Cheltenham.
Colbeck, T. W., Hertford.
Elliston, W. A., Ipswich.
Fowler, J., Winterton, Lincoln.
Gimblets, J., Stogumber.
Gradwell, J. P., Birmingham.
Harrison, G., 65, Grosvenor-street.
Holman, T., East Hothly, Sussex.
Hooper, J. H., Winchester Hospital.
Humphry, C. H., Balham-hill, Clapham.
Hurlston, M. O., Cheltenham.
Jennings, R., 6, Mount-street.
Kempster, F. H., 43, Exmouth-street.
Kirby, F. C., Leamington, Warwick.
Marriott, J., Colston Bassett.
Martin, G. W., Holly Lodge, Dalston.
Mayon, G., Monmouth.
Meggy, F. K., 34, Trinity-square.
Morgan, J. G., 6, Montague-street.
Murrell, W. H., Lewes.
Oughton, T., 1, Sutherland-square.
Patten, A., Ealing.
Savage, J., Burlington Quay.
Storrs, C. E., South Parade, York.
Summerhayes, W., 13, Maze Pond.
Thorpe, S., Maldon, Essex.
Troup, W. B., 4, Yew-tree-road, Birmingham.
Turner, E. C., 77, Mosley-street.
Ubsdell, H., 22, Cleveland-gardens.
Ward, H., Diss.
Walker, R. P., Buckfield, Birmingham.
Williams, J., 33, Sloane-street.
Willis, J., 45, Park-crescent.
Yeld, H. J., Infirmary, Stockport.

MEDICAL NEWS.

The Royal Medical Benevolent College.—The Fourth Anniversary Festival of this Institution is announced to take place on Wednesday next, the 2nd of April, at the Freemason's Tavern, the Right Hon. the Lord Mayor in the Chair. The list of Stewards is most numerous and respectable, and the Royal Medical College may now be said to be firmly established in the good opinion of the British public. We have no doubt that a large party will assemble at the forthcoming Anniversary, and that the funds of the College will be further augmented by the subscriptions of those who have not yet contributed to this great national undertaking.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 20, 1856:—

Cooke, John, Stamford.
Elwin, Charles Lekin, Dover, Kent.
Harris, Samuel Daniel, Stroudwater.
Sedgwick, James, Boroughbridge, York.

DEATHS.

BEVERLY.—March 1, at Budleigh, Devon, whither he had temporarily retired in the hope of recruiting his health, Edward Parry Beverly, Esq., Surgeon, of Margate, Kent, aged 28, greatly beloved and deeply lamented. Mr. Beverly was the son of Charles James Beverly, Esq., of the Grove, Hackney, formerly a Surgeon in the Royal Navy, and who, in that capacity, united with the office of Naturalist, accompanied Sir Edward Parry and Sir J. Ross, in their Arctic Voyages. The deceased, in conjunction with his father, took a deep interest in the condition of Lunatic Asylums, and in the welfare of their inmates, and was enabled, from his position at Whitmore House Asylum, West Hackney, (of which he was resident Medical Superintendent) to do much towards promoting the comfort and happiness of those brought within his influence. He had his reward in the recovery of numerous patients, and in the devoted attachment of many of them, one of whom, with a kind of fraternal devotion, followed Mr. Beverly to Margate, thence into Devonshire, and is now well nigh prostrated by the loss of his friend. Mr. Beverly pursued his studies at King's College, London, and in 1848 graduated for the B.A. degree of the London University. He became a Member of the Royal College of Surgeons of England in 1850, and a Licentiate of the Apothecaries' Society in 1852. Early in his Professional life he received the appointment of Resident Medical Superintendent to the Asylum above-mentioned; and at the time of his death was one of the respected firm of Hoffman and Beverly, Cecil-street, Margate.

BARNETT.—March 25, at his residence, 1, Montagu-place, Islington, Frederick Barnett, M.D., son of Henry Barnett, Esq., late of Colley, Herefordshire.

GERDY.—Professor Gerdy, one of the most eminent Surgeons and Physiologists of France, died a few days ago, of consumption. Besides his great intelligence and profound learning, he was renowned for his extreme sincerity and frankness.

APPOINTMENT.

WESTERN GENERAL DISPENSARY, NEW-ROAD, MARYLEBONE.—Mr. F. H. Wilson Iles, St. George's Hospital, has been appointed Resident House-Surgeon and Apothecary of this Institution.

BEQUESTS.

W. PARKER, Esq., of Skirwith Abbey, Cumberland, Manchester Infirmary, £500; Cumberland Infirmary, £500; Stockport Infirmary, £250; W. W. Broun, banker, of Chapel Allerton, Leeds, has bequeathed to the Leeds General Infirmary, £400; Leeds Dispensary, £200; Leeds Hospital, or House of Recovery, £200.

OFFICER OF HEALTH FOR ST. PANCRAS PARISH.—The election took place by ballot, March 19, when the result was —for Dr. Hillier, 74 votes; Dr. Fraser, 42 votes; and Mr. Rainey, 10 votes. Dr. Hillier was therefore declared duly elected.

THERE are forty candidates for election into the Royal Society this year. This number exceeds that of any preceding year since 1847.

LIVERPOOL SCHOOL OF MEDICINE.—STUDENTS' DEBATING SOCIETY.—The final meeting of this Society was held on Friday, March 14, when the thanks of the Society were voted to the President, Vice-Presidents, and to the Secretary. The meetings of the Society have been well attended, and the following gentlemen, students of the school, have favoured the Society with papers on various professional subjects:—Messrs. Fryer, Kerman, Flinn, George, Anderson, Cookson, and Potter.

PROFESSOR PAUL DUBOIS, who attended the Empress of the French in her confinement, and Dr. CONNEAU, who assisted him, have both been nominated *Commandeur de la Légion d'Honneur*.

IT is said that the pecuniary rewards to the Physicians who have attended the Empress have been—30,000 francs to Professor P. Dubois, 8000 to Dr. Conneau, 6000 to M. P. Rayer, and the same sum to M. Jobert de Lamballe.

THE PRIZE of the Pupils' Physical Society of Guy's has been awarded to Mr. S. R. Skinner, for his Essay on "Dropsy."

BOARD OF HEALTH.—A deputation from the Associated Registrars' Society had a long interview on Saturday last with the Honourable Mr. Cowper, the President. The object of the deputation was to point out the onerous duties imposed upon the Registrars by the present Vaccination Act, and the new Bill; the inadequate remuneration proposed, and the unsatisfactory mode of obtaining it, which does not depend upon the exertions or efficiency of the Registrars, but upon the degree of apathy, neglect, or general unwillingness of others; and to impress upon the mind of that gentleman that the Registrars are not an overpaid class of salaried officers, but are dependent upon fees, none of which they obtain till they are fairly and honestly earned.

MADAME GOLDSCHMIDT and her husband have contributed the munificent sum of £1872 towards the Nightingale Fund, being the proceeds of a concert given by them at Exeter Hall.

MR. HEADLAM'S BILL.—A Meeting of the Medical Practitioners of Ashton-under-Lyne and the neighbourhood was held at the Commercial Hotel, March 18, Mr. Robert Wood in the Chair, when the following Resolutions were passed,—That this Meeting recognises the necessity of reform in the Medical Institutions of this country. That this meeting sees with satisfaction, that the attention of Parliament is directed to this object. That the Bill now before Parliament is a step in the right direction, and with some changes will prove an acceptable boon to the Profession and to the public if passed into a law. That it is desirable to insert the words, "or for any treatment or advice for the cure of disease," after the words, "supplied by him," in Clause 36. That it is desirable to insert the words, "whether Registered or not," after "other Society" in Clause 37. That it is desirable to insert, "or who shall undertake the treatment of disease for gain," after the words, "Practitioner in Medicine," in Clause 39. That Petitions embodying the above recommendations be forwarded to the Two Houses of Parliament. That the Resolutions now passed be forwarded to the Medical Journals. That the Secretary be requested to communicate with the Framers of the Bill, and with other Members of Parliament, to promote the changes recommended.

ACADEMY OF MEDICINE AT WARSAW.—It is stated that the Emperor Alexander has recently signed a ukase for the establishment of an Academy of Medicine at Warsaw, of which Dr. Mianowski, Professor of Medicine at Wilna, is to be rector.

UNIVERSITY OF ATHENS.—There are at this University 658 students, 388 being natives, and 270 foreigners. Of these, 25 are students in theology, 253 in jurisprudence, 275 in medicine, 30 in pharmacy, and 75 in philosophy.

ACADEMIE DE MEDICINE DE FRANCE.—Of the 70 academicians nominated in 1820, 2 only, MM. Duméril and Bouley, survive.

CIVILIZATION AND DEPOPULATION.—The Hawaiian nation, which, seventy years ago, was estimated variously at from 200,000 to 400,000, now only counts 72,000, a decrease within that period of at least two-thirds. Vast tracts of land do not harbour a human soul; fertile kalo lands, once under cultivation, are left to the rule of grass and weeds. The island of Kauai, remarkable for the productiveness of its soil, and capable of sustaining a population of at least 100,000, contains only 6000. It is not to cruel and devastating wars that we have to attribute this unparalleled falling off in so short a time. The wars of Kamehameha I., however energetically they were carried on, cannot in the remotest degree be compared, so far as waste of life is concerned, with those of modern civilized nations. And it is after those wars, moreover, after the blessings of civilization were transferred hither, that the blight falls most mercilessly on this doomed people. The cause of the evil is an internal one, not caused, but increased, by external influences. Its investigation resolves itself naturally into these two questions—the scarcity of births, and the frequency of deaths.—*Polynesian*.

THE FRENCH HOSPITALS IN THE EAST.—About 10,000 patients are said to be at present in these Hospitals, among whom one-fifth have typhus fever. Of course, in the absence of official information, I should not venture on numbers about the deaths; but they must be very high, if one may judge by

the number of coffins which are daily brought on mules from Galata, and from various other signs. Thus, in riding the other day over the plateau near Maslak, I passed near one of the graveyards where some sappers were working at a row of graves, seventeen in number, on one spot. The Medical men do their duty in this fearful trial, but theirs is uphill work. Most of the sick come down from the Crimea in such a weakened state that they cannot resist the influences of the epidemic. General Storks has offered every assistance which he could give, either in Medical men or stores, but his offer was not accepted.—*Letter from Constantinople, March* 3.

CENTENARIANS.—In the last report of the Registrar General, a woman was stated to have died at the age of 104 years. In the returns for last week another remarkable example of longevity is recorded. A woman who had lived at 4, William-street, Dorset-street, Clapham-road, died on the 17th instant of "decay of nature; diarrhœa (3 days)," at the age (as stated) of 103 years. She was the widow of a gardener. Mr. Edwards, the Registrar, mentions that her illness was caused by hearing of the death of her son, a man 61 years old, who died in Guy's Hospital, where he had undergone an amputation. She was previously in good health and in possession of her faculties, and assisted, in the last week of her life, in the usual domestic duties. The age of old persons is, however, often exaggerated; and such statements are not to be received without doubt, unless they are confirmed by a register of birth or baptism, or other satisfactory evidence.

MORTALITY NOTABILIA.—In the week that ended on Saturday the total number of deaths registered in London was 1213, of which 638 were deaths of males, 575 those of females. In the corresponding weeks of the ten years 1846-55 the average number was 1164. This number if raised by a tenth part for comparison with last week's deaths, which occurred in an increased population, becomes 1280. The present rate of mortality is therefore less than the average. The mean temperature of the air fell below the average on Tuesday the 4th instant, and has continued more or less below it every day since that date, with the exception of four days last week. That this unusual coldness has to some extent affected the public health is shown by the deaths from diseases of the respiratory organs, which were in the last three weeks successively 191, 223, and 281. The increase of bronchitis, which belongs to the class mentioned, appears from the following numbers, returned in the same weeks: 86, 101, and 141; the increase of pneumonia, the deaths from which are more confined to children, is less marked, the numbers being 76, 92, and 96. Phthisis (or consumption) was fatal in the same periods in 129, 148, and 144 cases. Of 26 deaths from scarlatina, a half occurred in the North districts, principally Pancras, Islington, and Hackney; while of 58 from typhus and common fever, 18 occurred in the East districts, chiefly in Whitechapel and Mile-end.

BIRTHS.—The births of 889 boys and 838 girls, 1727 children, were registered,—average 1565.

METEOROLOGY.—The mean height of the barometer in the week was 29·823 in. The highest reading was 30 in. at the beginning of the week. The mean temperature was 42·8°, which is 0·9° above the average of the same week in 38 years (as determined by Mr. Glashier). The highest reading was 52°, and occurred on Wednesday; the lowest was 31·1°, and occurred on Sunday. The mean dew-point temperature was 38·8°; and the difference between this and the mean temperature of the air was 4°. The mean temperature of the water of the Thames was 42·6°. The temperature of the river ranged from 40·3°, the lowest on Sunday and Monday to 45·5°, the highest on Saturday. Wind south-east on first three days; north-east on last three. Rain 1·29 in. Horizontal movement of air 680 miles; no electricity observed.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending March 22:—

	Males.	Females.	Total.
Workhouses	72	83	155
Prisons	..	..	..
Military and Naval Asylums ..	11	..	11
General Hospitals	41	20	61
Hospitals for Special Diseases ..	9	5	14
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	16	..	16
Hospitals for Foreigners, etc. ..	..	2	2
Lunatic Asylums	3	2	5

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	5	3	7	..	12
North	490,396	1	4	13	2	2	11
Central ..	393,256	2	3	2	8	2	6
East.....	485,522	2	5	4	17	..	18
South	616,635	7	3	4	18	2	11
Total..	2,362,236	12	20	26	52	6	58

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, March* 22, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, March 22, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp. °	42·8						41·0
ALL CAUSES	1213	540	178	210	236	49	1164·4
SPECIFIED CAUSES	1213	540	178	210	236	49	1160·6
DISEASES:—							
1. Zymotic Class	219	147	26	22	21	3	224·2
2. Dropsy, Cancer, and others of uncertain seat	37	6	4	13	13	1	43·7
3. Tubercular Class	188	65	68	46	9	..	202·0
4. Of Brain, Nerves, etc. ..	131	56	17	12	41	5	131·7
5. Of Heart, etc.	54	2	10	22	19	1	46·4
6. Of Respiratory Organs ..	281	124	22	50	76	9	245·1
7. Of Digestive Organs ..	64	27	6	18	11	2	65·5
8. Of Kidneys, etc.	14	3	3	5	3	..	13·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	13	..	7	4	1	1	9·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	4	1	2	1	..	8·4
11. Of Skin, etc.	2	..	..	1	1	..	2·1
12. Malformations	6	6	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	32	32	..	..	..	..	27·6
14. Atrophy	35	26	1	..	8	..	26·3
15. Age	51	..	..	..	25	26	58·5
16. Sudden	16	11	1	1	3	..	15·2
17. Violence, Privation, etc...	62	31	12	14	4	1	37·7
CAUSES NOT SPECIFIED.. ..	..	..	..	..	..	..	3·8

BOOKS RECEIVED.

Low on the Simple Bodies of Chemistry. Edinburgh: Adam and Charles Black. 1856.

Dr. Markham on Diseases of the Heart. London: Churchill. 1856.

A Report of some Cases of Operation. By George Murray Humphry. Cambridge. 1856.

TO CORRESPONDENTS.

We have been compelled, in consequence of the great pressure upon our space, to postpone the publication of our Reports of the Pathological and Medical Societies, together with some Original Communications, until next week.

Dr. Merriman will observe that the bequest was duly announced in our last.

A House-Surgeon to an Hospital may be compelled by a Coroner to give evidence at an Inquest upon a person who has died in the establishment. In certain cases, as of Parochial Infirmaries or Workhouses, the Resident Medical Officer is entitled to a fee, but the Act of Parliament expressly states that the Medical Officers of Hospitals are bound to give evidence without remuneration, if required to do so by the Coroner. The cases where the Medical Officer may claim a fee are exceptional.

Mr. J. H. Gramshaw, Gravesend.—As to the salary of the Medical officer, it is entirely under the control of the Poor-law Board. By the general Consolidated order a Medical officer is to be paid a fixed salary, and

also extra fees for midwifery and for certain specified operations. In some Unions where the Guardians and the Medical officers mutually consent, the Board have assented to a commutation of the fees by reference to an average of the three years last preceding. The sum thus estimated is added to the fixed stipend, and the Medical officer is thenceforward paid a salary and no fees. For this purpose the Board must alter their general order by a special one. The fees for vaccination are and must continue to be distinct, as they depend upon the provision of a particular Act of Parliament.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—I beg to direct the attention of the Profession to the Unguentum Cetacei of the shops: the Pharmacopœia orders spermacetti, white wax, and olive oil, to be used in the preparation of it; the resulting ointment has a yellowish-white colour, possesses a sweet pleasant smell, and will keep good for a considerable time; but the unguentum cetacei, as supplied by a large number of Druggists, is white, showing that either lard, or bleached oil has been employed, both of which are highly objectionable on account of the rapidity with which they become rancid, and, of course, when applied in that condition to sores must be very injurious.

It is much to be regretted that the desire to please the eye should induce some of my brethren to deviate from the directions of the Pharmacopœia, more especially when they cannot help knowing that, in this particular case, injurious effects are so sure to follow. To me, as a Chemist and Druggist, it is a source of frequent annoyance, as the public are too apt to believe that the adulterated article is pure because it is white, and that the genuine is the adulterated ointment because it is yellowish-white, and not so pleasing to the eye. I am, &c. PHARMACEUTIST.

March 22, 1856.

A. B.. Fenny Stratford.—The words "duly licensed Medical man," in Article 170 of the General Consolidated Order, signify a person who is by law licensed to practise medicine in England. For the most part this definition applies to licentiates of the Apothecaries' Company, but it is sometimes considered that a person who has obtained a licence from a College of Surgeons is within the terms of the Article; but it does not apply to persons who possess only Irish or Scotch diplomas, except particular diplomas granted by the Colleges of Glasgow and Edinburgh, to which certain statutes lately passed apply.

Mr. Griffin.—Our space will not permit us to publish the letter on Vaccination, and the petition which accompanies it. Anxious as we are, and ever have been, to advocate the rights of the Profession to a fair remuneration for services performed, we cannot oppose, or assist in opposing, the very excellent Vaccination Bill now before the House of Commons, on such grounds as those taken by our esteemed Correspondent. By insisting upon too high a rate of remuneration, we shall lose the Bill altogether, and lay our Profession open to the charge of opposing measures of public utility from merely mercenary motives. It must also be noticed that the Bill prepares only the *minimum*, not the *maximum* of remuneration.

Lector (Manchester.)—We cannot, without being invidious, answer our Correspondent's questions in detail. Opinions must, of course, differ as to the amount of honour conferred upon an English practitioner by a Scotch diploma; but as so many practitioners annually seek for and obtain the title of M D. from the North, we presume that it is held in estimation by the public. We cannot undertake to give a decided opinion upon the relative merits of the Universities referred to; but if we were giving advice to an English student, we should recommend him to graduate at the University of London, and if to a Scotch one, at the University of Edinburgh. A great defect in all the Scotch Universities is, the prevalent neglect of preliminary classical and mathematical attainments as qualifications for the degree. We cannot give a legal opinion as to the respective rights possessed by the two Universities in Aberdeen to grant degrees in Medicine.

An Extraordinary Member of the Royal Medical Society of Edinburgh writes to us to state, that Dr. Bennett's remarks have been misapprehended by our Edinburgh Correspondent, in his report of a paper read by Dr. Bennett; but as only a general denial is given of our Edinburgh Correspondent's accuracy, without a distinct specification of the errors supposed to be contained in our Report, we must adhere to the opinion that our version of the opinions expressed was substantially correct.

Ignoramus should consult some elementary work on Materia Medica and Therapeutics, as we could not answer his questions fully without entering into a number of details. Blue pill and grey powder are mild preparations of mercury, while calomel is a powerful one. Tartar emetic is the most energetic of the antimonial preparations; oxy-sulphuret of antimony is alterative and diaphoretic; compound antimonial powder is said to be a febrifuge and diaphoretic, but its operation is very uncertain, from the variable proportions which it contains of antimonial oxides and of phosphate of lime. When a solution of bicarbonate of potash is mixed with hydrocyanic acid, very little, if any, decomposition takes place, because the latter is, chemically speaking, a feeble acid, and is incapable of dislodging the carbonic acid from its combination with potash.

Mr. G. T. Roper's letter arrived too late for insertion this week, but the subject shall receive immediate attention.

A General Practitioner.—The gentleman referred to may be consulted with advantage.

Mr. Newsom, Wexford, Ireland.—The account of the case of Poisoning by Strychnia has not been overlooked, and its perusal will probably have considerable bearing upon the forthcoming trial. At present we are not at liberty to discuss some of the points indicated.

ERRATUM.—In the Pass List of the Apothecaries'-hall in our last, *for* Charles Evans Mnrule *read* Charles Evans Muriel.

COMMUNICATIONS have been received from—

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; Mr. F. H. W. ILES; THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH; THE ROYAL MEDICAL BENEVOLENT COLLEGE; Dr. RIGBY; Mr. E. WILKINSON; THE SOCIETY OF APOTHECARIES; Mr. W. J. THORNTON, Crimea; Mr. CHRISTOPHER BULTEEL; Dr. F. J. BROWN; ONE WHO HOLDS A DOUBLE QUALIFICATION; Mr. W. B. KESTEVEN; Dr. WILKS; K.; PHARMACEUTIST; Mr. W. G. LUMLEY; Mr. THOMAS HARPER, Plymouth; Mr. R. M. NEWSOM; Mr. T. D. PERRIN; IGNORAMUS; Mr. ALFRED ASPLAND, Lyme Regis; THE ASSOCIATED REGISTRARS' COMMITTEE; Dr. ELLIOTSON; Mr. HUXLEY; THE ASYLUM FOR IDIOTS; A HOUSE-SURGEON; Dr. B. W. RICHARDSON; Dr. P. B. AYRES; Mr. SPENCER WELLS; Mr. HENRY SMITH; Mr. CHARLES EVANS MURIEL; LECTOR, Manchester; Mr. RICHARD GRIFFIN; Dr. C. B. RADCLIFFE; Mr. G. D. KERMAN; Mr. W. HARDY; Dr. S. W. J. MERRIMAN; E. T.; Dr. CHARLES MURCHISON; Mr. GEORGE CALLENDER; Dr. THOMAS HILLIER; Dr. H. W. LIVETT; A COUNTRY PRACTITIONER; Mr. J. B. COLLIER; Dr. E. SMITH; R. S., Margate; Dr. ANDREW SMITH; Mr. G. T. ROPER; Mr. W. CURTIS; Mr. G. FOOTE; THE SECRETARY OF THE KENT COUNTY OPHTHALMIC HOSPITAL; Dr. W. R.; KNESIS; Mr. W. FERGUSSON; Mr. R. GRIFFIN; Mr. HENRY LEACH; A GENERAL PRACTITIONER; Dr. JOSEPH DICKSON; MEDICO-CHIRURGUS; THE ROYAL INSTITUTION; Mr. H. W. LEY.

APPOINTMENTS FOR THE WEEK.

MARCH & APRIL.	MISCELLANEOUS REGISTER.	SOCIETY MEETINGS.
29. SATURDAY....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	MEDICAL SOCIETY OF LONDON, 8 p.m.
31. MONDAY.....		CHEMICAL SOCIETY, 8 p.m. *Anniversary.*
1. TUESDAY	Operations at Guy's, 1 p.m.	PATHOLOGICAL SOCIETY, 8 p.m. LINNEAN SOCIETY, 8 p.m.
2. WEDNESDAY ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. ROYAL COLLEGE OF PHYSICIANS.—*Lumleian Lectures:* Dr. Robert Lee "On the Structure, Physiology, and Diseases of the Ovaria, Uterus, and Heart."	PHARMACEUTICAL SOCIETY, 8 p.m.
3. THURSDAY....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	ROYAL SOCIETY, 8½ p.m. PHOTOGRAPHIC SOCIETY, 8 p.m.
4. FRIDAY	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m. ROYAL COLLEGE OF PHYSICIANS.—*Lumleian Lectures:* Dr. Robert Lee "On the Structure, Physiology, and Diseases of the Ovaria, Uterus, and Heart."	WESTERN MEDICAL AND SURGICAL SOCIETY, 8 p.m. ROYAL INSTITUTION, 8½ p.m. BOTANICAL SOCIETY, 8½ p.m.

ORIGINAL LECTURES.

LECTURES ON EPILEPSY.

DELIVERED AT

Westminster Hospital.

By CHARLES BLAND RADCLIFFE, M.D., L.R.C.P.

Assistant-Physician to, and Lecturer on Materia Medica at, the Westminster Hospital.

Lecture II.

2. *The Condition of the Nervous System in Epilepsy.*

Interrogating the nervous system, all the facts appear to declare the same want of activity, as that which is declared by the condition of the vascular system.

The functions of the brain are inefficiently performed at best. The want of purpose, the want of cheerfulness, the want of memory, the want of intelligence, which are habitual, the oblivion of the fit, and the gloom and prostration which remain after the fit, all go to confirm the impression which is so generally conveyed at the very first glance by the dilated pupil and the fireless countenance.

The fact, however, that epilepsy is so frequently connected with insanity—so frequently, that out of 339 epileptics whose history was analysed by Esquirol, 269, or four-fifths, were also insane—may be thought to furnish an objection to the idea, that the mental state in this complaint is one of depression and eclipse, but this is not the natural significance of the fact. Thus, out of these 269 cases, the greater part by far were demented—were persons, that is to say, whose mental state is the negation of everything active. Nor is it really different with those epileptics whose mental derangement has a more active complexion; for in these cases, it invariably happens that the epileptic and maniacal paroxysms are utterly uncongenial, and that the convulsions occur in the intervals between the periods of mental excitement, and never in those periods—occur, in point of fact, in those times of depression which receive the first shadows of that total eclipse which hides the end in sunless gloom.

The morbid appearances after death, though obscure, are to the same effect. In fatal cases the brain has been found to be congested; but this appearance is clearly owing to the manner of death, and it is allowed to be so. In other cases, where the epilepsy has been complicated by insanity, various signs of inflammation may be met with in the brain or its membranes; but these signs are clearly referable to the insanity, and this for no other reason than that they are more common, or as common in insanity without epilepsy, as in epilepsy with insanity. In other cases, there are signs of degeneracy and want of tone—such as pallor of the grey matter, atrophy, softening, and dropsical effusion. Now, these signs are common to dementia and fatuity, and this very fact furnishes a strong argument that they are also common to epilepsy. It does this, because epilepsy and dementia are allied by a bond which cannot be severed. It does this, because dementia is intimately connected with other convulsive diseases;—indeed, if a demented person is not epileptic, he is almost sure to be afflicted with palsied shakings, or cramps, or spasms in one form or other.

Another appearance, which is almost constantly present in the heads of epilepties, and which would seem to have a similar significance to the rest, is the great preponderance of bony matter. The skull is much thicker and heavier than usual, and its thickness and heaviness are almost in direct relation to the duration of the disease. The several internal projections, as the clinoid processes, are considerably developed; there are osseous plates in the dura mater, and the falciform process in particular is more or less converted into bone. Now, this increased tendency to ossification *may* be held to signify a tendency to devitalisation in the parts about the head, for bone holds the lowest grade among the tissues; and in this way the excess of bone may be taken as an indirect argument of wanting activity or vitality in the neighbouring brain.

There is every reason to believe, then, that the brain of the epileptic is inactive at best, and particularly during the paroxysm; and, so far as we can see, there is no reason for supposing that the medulla oblongata, the spinal cord, or any other part of the nervous system are in a different state. In short, inactivity of every part of the nervous system, and of the body at large, follows as a necessary consequence from the depressed condition of the circulation. Nor is there any reason to except the spinal cord. On the contrary, we may infer the want of energy in this organ upon commonly received opinions, from the want of muscular tone, which is a marked peculiarity in many, if not in all, epileptics.

But is this all? Is there no peculiar state of any part of the nervous system in epilepsy? Is there no *irritation?* In order to answer this question, it is necessary to ask another,—What is irritation? It is not inflammation, it is not fever, it is some indefinable and negative state which is met with in worm disease, in teething, in uterine derangement, and in many other cases, and in which the patient is unusually sensitive to the various influences acting upon the body—unusually depressed by depressing influences, unusually excited by exciting influences. But what is this state? Is it anything more than mere debility? In worm disease the system is starved by its hungry parasites; in difficult teething the strength is worn away by pain and want of sleep; in uterine derangement the health in all probability is undermined by pain or by sanguineous and other exhausting discharges. In each case there is unequivocal exhaustion of body and mind; and if so, does it not follow that the symptoms of *irritation* are necessarily present? A weak person is more affected by the several agencies which act upon the body, because he has lost some of that innate principle of strength which belongs to the strong person; and to be more affected by these agencies is to be more *irritable*, for every idea which is implied in the condition of *morbid irritability* appears to be presented in a person who responds impatiently to every stimulus which may act upon his system.

In a word, undue irritability would seem to be nothing more than a natural consequence of that general state of weakness the signs of which are written upon the vascular and nervous systems of the epileptic; and for this reason it cannot be cited in proof of the existence of any special condition of any part of the nervous system.

Nor is the case different when the state of irritation is caused and kept up by some mechanical cause, as by the pressure of a bony spicula upon the brain. In this case the primary effect, in all probability, is to excite inflammation, and this inflammation, in the natural course of things, must exhaust in various ways the strength of the brain and of the system generally, and so make the patient more irritable. The question, then, is whether this convulsion is connected with the state of inflammation or with the resulting condition of exhaustion; and the answer, which is to be found in the general history of the patient, is not at all doubtful. It is, that the convulsion is connected with exhaustion, and not with inflammation.

The lesson, then, which we derive from a consideration of the condition of the nervous system in epilepsy, is in keeping with that which is derived from a consideration of the condition of the vascular system, and this lesson is, that there is a great want of nervous activity at all times, and especially during the fit. In a word, the epileptic appears to be emphatically *unnerved.*

3. *The Condition of the Muscular System in Epilepsy.*

The condition of the muscular system is not at all marked. The muscles are certainly not hypertrophied, and therefore there is no reason to suppose that they have been exposed to excessive stimulation of any kind. On the other hand, there is not unfrequently, and particularly in old cases, an unmistakeable want of tone in the muscles. The patient is easily fatigued, that is to say, and when fatigued he recovers with difficulty.

4. *The Causes of Epilepsy.*

These causes, so far as we know, are in accordance with the foregoing considerations.

A very common cause is hereditary predisposition. In other words, the bodily and mental features which have been described are transmitted, and not acquired. And all this is intelligible enough, for it is much more easy to understand that the offspring should be like the parent than unlike the parent.

Epilepsy is very often referred to fright or fear, and this fact is a collateral argument in favour of the previous conclusions; for, in order that fright or fear should operate in this inordinate manner, it is necessary that there should be some undue weakness, or want of balance in the system. It is necessary that a man should incline strongly to the feminine type, and that a woman should retain too much of the impressibility of childhood.

Another and very important inducing cause is sexual abuse of one kind or another. All are agreed upon this point; and all are also agreed that this cause is one which exhausts extremely the true strength of the system.

Over-study is also an occasional, but by no means a frequent, predisposing cause. We have met with several instances where over-study may have helped to bring out a latent predisposition; but we as yet know of no case in which it was a principal or even important cause.

The causes which bring on the individual attacks are very various, but they are such as we may expect from the premises.

That which we should be disposed to mention as by far the most frequent cause, is undue muscular exercise. We have notes of cases where the fits diminished in number, or remained altogether absent, so long as the patient was careful to avoid any fatigue, and when a fit was certain to follow any carelessness in this respect.

After muscular fatigue we must certainly mention abstinence. Epileptics, so far as our experience goes, like all persons who are essentially weak, bear abstinence ill, and it is astonishing how soon they become faint, if they are kept waiting beyond the time of their accustomed meal.

After abstinence we should be disposed to place sexual imprudence.

The individual attacks have, no doubt, a marked tendency to recur at stated periods. They recur, for example, in the night rather than in the day, and they do not recur indifferently at all periods of the month or year. We cannot enter upon this subject here; and it must suffice to say, that we have elsewhere endeavoured to show that this *periodicity* is only another sign of want of vital power in the epileptic. The plant exhibits plainer and more numerous evidences of periodicity than the animal, and it does this, we argue, because it has less of that innate life which enables the higher animals, and man himself, to be partially independent of the vivifying influences which are derived from without; and hence, it follows that the man who exhibits more evidences of periodicity than he ought to do, has been shorn of some of that innate life which is the badge of distinction between him and the plant. According to this view, therefore, the periodicity of epilepsy is merely another proof that the system of the epileptic is imperfectly vitalized or stimulated.

Much obscurity undoubtedly hangs over the causes of epilepsy, but, so far as we have been able to investigate them, there is no reason to doubt, and every reason to believe, that all these causes operate by exhausting, and not by exciting the system. In a word, the causes seem to be those which would naturally induce or perpetuate that weak and depressed condition of the vascular, nervous, and muscular system which we have seen to be characteristic of epilepsy.

What conclusion, then, are we to draw from these considerations? How is it possible that the muscles should contract so excessively, when it is evident that their natural stimulation must be more or less completely withheld? There is no difficulty in answering this question if we adopt that view of muscular contraction according to which muscle is supposed to contract, not because certain stimuli have been communicated to it, but because it is left to the action of common molecular attraction by the withdrawal of these stimuli (see *Medical Times and Gazette*, June 16, 23, and 30, 1855,)—a view which is also corroborated, as we have endeavoured to show elsewhere, ("Epilepsy, and other Affections of the Nervous System which are Marked by Tremor, Convulsion, or Spasm; their Pathology and Treatment." Churchill. 1854,) by a general history of all tremulous, convulsive, and spasmodic disorders;—but, if we do not adopt this view, the question we have asked remains without any answer, and the pathology of epilepsy is an unsolved enigma.

On the other hand, if we do adopt this view, then there is neither contradiction nor difficulty in the pathology; and we need not repeat the questions which Foville asks despairingly. —"Pourquoi, tandis que l'intelligence et la sensibilité sont complètement abolies, l'action musculaire est elle si souvent portée au plus haut degré d'intensité qu'elle puisse atteindre? Pourquoi cette opposition si tranchée dans deux ordres de symptômes fournis pas la souffrance du même organe? Comment se peut-il que la même altération survenue brusquement paralyse l'intelligence et la sensibilité, et excite au plus haut degré l'action des muscles? En d'autres termes, pourquoi, pas suite d'un dérangement subitement développé, la portion des centres nerveux qui préside à l'intelligence et à la sensibilité est-elle anéantie dans son action, tandis que celle qui préside aux mouvemens volontaires se trouve assez violemment excitée pour produire d'horribles convulsions?"

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

CONTINUED PRESSURE IN ANEURISMAL TUMOUR.

By W. COATES, M.D.
Surgeon 1st Division, Provisional Battalion

The brief note of the following case, may not, I think, be uninteresting in showing the advantage of persevering continuance of pressure for an extended period in case of aneurismal tumour.

Corporal Kinsman, 14th Regiment, was sent down from the Crimea invalided. He reports, that after a rapid advance to the trenches, he remained in the wet and cold during twelve hours, and on the following morning felt stiffness in one leg, and perceived a small swelling in the left popliteal space. The case came under my care, July 16, presenting a pulsating tumour in the left ham, about the size of a small pullet egg, producing a sensation of constant fatigue and slight lameness. From unavoidable delay in procuring a suitable apparatus, pressure was not commenced until July 30. From that date until November 4, compression in the upper part of the thigh was steadily maintained with such force as completely to arrest the circulation in the femoral artery, for the duration of an hour, three and occasionally four times during every twenty-four hours, at all other times with pressure only sufficient to diminish the force of the circulation in the main trunk.

As this lengthened period of 67 days produced no sensible diminution of the disease, I determined, with the concurrence of my colleague, Staff-Surgeon Mandeville, to try the effect of cold in conjunction with pressure. On November 4, therefore, I commenced the refrigerating plan, by allowing the tumour, bandaged with flannels, to rest on a snow-ball placed in a flat tin pannikin, during two or three hours a-day; an equal amount of pressure being maintained as heretofore. Still no improvement manifested itself for ten days; but on the morning of the eleventh day, the patient reports that shortly after my visit, when he was adjusting the apparatus, he could discover no pulsation in the tumour, nor has it returned from that time. The tumour is now so much diminished in size, and occasions so slight an inconvenience, that the man is permitted to do light duty as Hospital store-keeper, and in all probability will soon become an effective soldier. I think I may fairly infer, that the great tolerance of pressure arose from adopting the same precaution as that upon which I insisted in the case of brachial tumour, reported by me in your journal of November 6th, 1852, No. 123, viz., of making the counter-pressure occupy a large surface of the limb, instead of employing the pad, which I believe is still generally adopted. The whole apparatus is rather a curiosity of native workmanship; yet it answered the intended purpose, as well as a more finished and elaborate instrument. It consisted of a broad iron well padded splint, having two circular hinged arms to surround the limb; these terminated in round hooks, adapted to eyes in an ordinary tourniquet plate, armed with a conical pad, moderately stuffed with horse-hair.

Military Hospital, Vittorioso, Malta,
December 5th, 1855.

P.S.—Eleven weeks have elapsed since I drew up this report, and I am happy to say my expectations are realized; there is now scarcely any trace of disease remaining, and the man has returned to his duty.—March 3, 1856.

RETURN OF WOUNDED IN THE FOURTH DIVISION BEFORE SEBASTOPOL.

DURING THE QUARTER ENDING 30TH SEPTEMBER, 1855.

By FREDERIC ROBERTS, Esq.
Staff-Surgeon of the First Class.

In the Table of wounds admitted during the quarter ending the 30th June, out of 301 wounds, 203 were in the upper half of the body, and 98 in the lower; while it will be seen that in the quarter ending 30th September, 220 were in the upper and 118 in the lower half, making a total of 338. But, whereas in the former quarter 70 were wounds in the arms and 44 in the legs and thighs, in this quarter there are 96 of the former and 107 of the latter, which may be explained by the increase in wounds from shells, and diminution in those from rifles, during the latter quarter.

During the months of July, August, and the early days of September, the mortar practice of the enemy was active, and the wounds from shell and other splinters were more numerous than in the former quarter; probably the musketry told less from the same reason upon our men, who were less able to use the rifle from the increased risk of casualties from shell splinters. To show the gradual increase in the practice of the enemy from 1st April to September, the following, taken out of a daily register of killed and wounded, is appended.

Wounded were admitted 55 days out of 91 in the quarter.

Description of Wounds.	Remained.	Admitted.	By Musket Shot (conical ball).	Round Shot.	Grape.	Shell or Stone Splinter.	Bayonet.	Fougasse.	Remarks.	Primary Amputations.	Secondary Amputations.	Died.	Cured.	Sent to General Hospital.	Under Treatment.
Contused or lacerated wounds of head, neck, or face.	10	78	17	..	1	60	..	..	.. .. ..	..	..	1	64	13	10
Wounds with fracture of cranium or bones of the face or neck.	3	23	9	1	..	13	..	..	Among these were numerous fractures of skull by rifle ball and shell splinters; many proved fatal in a short time.	..	..	14	1	9	2
Wounds of chest not penetrating cavity.	7	16	7	1	1	7	..	..	.. .. ..	..	..	..	14	7	2
Wounds of chest penetrating cavity.	2	7	5	1	1	..	..	..	In five of these the parietes had been penetrated through, and in the remainder the lungs were wounded.	..	..	5	1	2	1
Wounds of abdomen not penetrating.	1	7	2	1	1	3	..	..	.. .. ..	..	..	..	6	2	..
Wounds of abdomen penetrating.	1	4	2	1	..	1	..	..	In one case the liver was wounded; in another, the colon; the rest being extensive muscular lacerations by shell.	..	..	4	..	1	..
Contused or lacerated wounds of upper extremities.	23	68	26	5	3	34	..	..	.. .. ..	2	..	..	63	24	4
Ditto with fracture.	10	28	16	1	2	9	..	..	One case of excision of head of humerus by Dr. M'Audrew, 57th Regiment, eminently successful, as affording a useful limb.	8	1	2	10	19	7
Punctured, contused, or lacerated wounds of lower extremities.	13	85	22	8	7	44	4	..	.. .. ..	1	..	2	53	37	6
Ditto, with fracture.	6	22	5	4	1	11	..	1	Head of femur excised by Dr. O'Leary, 68th Regiment; the case successful, and is hitherto unique. The man is invalided to England. Popliteal artery in one case of fracture into the knee-joint was divided.	7	..	13	2	7	6
Total.....	76	338	111	23	17	182	4	1	.. .. ..	18	1	41	214	121	38

From a Return I called for from the Regimental Surgeons of the Division of the number of wounded arteries and secondary hæmorrhage that had occurred in their respective practices from 1st January, 1855, to 10th September, I find the following to be the aggregate results for the whole Division:—

	Cases.	Successful.	Fatal.
Secondary hœmorrhage .	5	3	2
Wounded arteries . .	1	..	1

Scutari, February 11, 1856.

INFLAMMATION OF THE OS AND CERVIX UTERI,

WITH

UTERINE IRRITATION FROM THE IMPROPER USE OF CAUSTIC.

By Dr. RIGBY.

Mrs. D., aged 30, married nine years, three children.

July 5.—Tall; delicate.

Has been under the care of a Practitioner since last September, for what he stated to be ulceration of the os uteri. She has had a constant leucorrhœa since the birth of her last child, lasting for nearly three years, but without any accompanying pain; at the same time the catamenia have become scanty and pale. Over-nursed herself with her two last children, and brought on leucorrhœa each time. Caustic was applied twice a-week from September till June. It was nearly seven months before the leucorrhœa was stopped under this treatment; and during the last few days it has returned to a considerable amount; even at the best it was always copious just after a catamenial period. During the whole of this course of caustic applications she has been enabled to get about and walk occasionally. The applications themselves caused severe pain. Since coming to London she has been using suppositories.

Tongue sulcated; bowels regular; urine clear; perspires freely.

Examination per Vaginam.—Vagina flabby; os uteri low down, resting on the posterior part of the perineum; cervix long; nothing else abnormal. Pil. hydrarg., ext. hyoseyami āā gr. v., alternis noctibus, acid. nitro-mur. c. taraxaco ex infus. cinchonæ oblongifol. bis die. Potassæ bicarb. gr. x., potassæ nitratis gr. v. M. Ft. pulv. post prand. sumend. Decoct. quercûs c. alumine pro lotione.

If a feeble mother attempts to nurse her child beyond her strength, it is well known that leucorrhœa, among other symptoms of debility, is a very general result, and this additional drain upon the exhausted system prostrates the powers of the patient still further. She had brought on leucorrhœa by this cause after her second confinement, but must have recovered sufficiently to have again become pregnant. A repetition of the error brought back the affection more permanently, and prevented her regaining her strength. That a variety of symptoms should be induced, indicating that the system was suffering from such a drain, is no more than might be expected, and, among others, the catamenia had become scanty and pale, the vagina was flabby, the uterus partially prolapsed and resting on the perinæum, etc. etc.; but even supposing that an ulceration of the os uteri had been disco-

vered (and modern practice does not require this fact to indicate the application of caustic), I am at a loss to understand by what reasoning it could be made out that this condition of the os uteri was the cause of the leucorrhœa and of her other symptoms. I am equally at a loss to understand how an ulceration of the os uteri, arising from a partially prolapsed uterus, could be cured by keeping up a raw surface for nearly nine months by means of caustic applications twice a-week. No wonder the patient described them as being very painful; my only astonishment is, that more serious and permanent mischief had not been produced. I also deny the fact, that ulceration upon the os uteri of any form (more especially the minute excoriations and granular spots which have lately received this appellation), is capable of producing a leucorrhœal discharge, either in quantity or quality at all similar to what this patient had,—it was the simple leucorrhœa arising from a relaxed flabby vagina in a debilitated female, the precise nature of which has been described in so masterly a manner by Sir Charles M. Clarke.

Although it is difficult to say which excites most surprise, the endurance of the patient or the perseverance of the Practitioner, the case is unfortunately one of no uncommon occurrence, and there can be little doubt that, if due attention had been given at an early period to maintain the general health, and restore the broken powers of the system, the vagina would have regained its tone, and the uterus its support; the leucorrhœa would have ceased, and the patient would have remained in happy ignorance of "ulceration," and its consequences.

Mrs. E., aged 29; married two years; never pregnant.

February 8.—Brunette; feeble; abdomen large and full. Frequent paroxysms of dull pain about the left hip, extending to the left thigh, lasting for an hour and a-half at a time, or even more; it is brought on by standing, constipation, or cold; says that it flies from one spot to another, viz., back, shoulders, and head. Bowels kept regular by medicine, naturally confined; urine thick; tongue clean; pulse feeble. The catamenia are regular; they are profuse for one day only; they are attended with sharp pain. Hæmorrhoids. The pain of hip and thigh has been gradually coming on for a year. Since Christmas has had the speculum and caustic applied twice a week for a while; but she could not endure it long. She was subject to the common simple leucorrhœa until the speculum-and-caustic treatment, when she first noticed the albuminous, ropy discharge and the pelvic pain. The pain which she had originally complained of was pain of the back, and also across the stomach, which latter she had attributed to dyspepsia, until the Practitioner declared it was a case of "ulcerated womb," which he accordingly found.

Examination per vaginam.—Os uteri very flabby, turned rather forwards; uterine sound passes between two and a-half and three inches; it is covered with a tenacious, albuminous-looking discharge, of which there also seemed to be a quantity in the vagina; the uterine cavity is acutely tender.

Cum speculo.—Os covered with the same discharge, otherwise pale and healthy.

Pil. hydr. c. hyosciamo āā gr. v., alt noct. per 4 vices.

℞ Potassæ bicarb. gr. x., potassæ nitratis. gr. v., sp. ammon. arom. ʒss., aquæ, ʒj. M. Ft. haustus bis terve die post cibum sumendus.

℞ Liq. plumbi diacet. ʒij., decoct. papav. ʒviij. ṃ. Ft. lotio. Let her preserve the recumbent posture as much as possible.

March 21.—Was quickly relieved by the above treatment, and, living at some little distance, has only now called to report herself cured.

This patient was of a sluggish feeble habit of body, and had been liable, as such individuals frequently are, to more or less of simple leucorrhœa, and the gastric derangements which commonly attend it; and living in a low marshy district this was followed, after a while, by pain of the back; it was evidently nothing more than the ordinary dragging pain of back connected with this state of health. The other pain was evidently of a dyspeptic character, as she herself rightly asserted; and, if a little judicious attention had been paid to the treatment of her general health, there is little doubt but that the leucorrhœa, the pain of the back, hips, etc., would have quickly vanished with returning strength. The case is one of the commonest description, and the treatment as simple. I have, of course, had occasion to examine many cases of this character, and think that I am justified in stating, that ulceration of the os uteri is *not* common among them. The os and cervix may be somewhat gorged from the slight descent of the feebly supported uterus obstructing the returning circulation from it: so would our own hand be, if held down long enough, and still more so, if assisted by a ligature round the arm; but should we be justified in scarifying the swollen fingers, or in applying caustic to them, while we neglected to remove the bandage, and put the arm into a horizontal posture?

The application of the caustic every three or four days, and the due establishment of *a raw* upon the os uteri, soon made the simple leucorrhœa of atonic dyspepsia assume the albuminous character of inflammation of the cervix; and, from the extreme tenderness of the uterine cavity, and presence in it of a somewhat similar secretion, there is little doubt but that the inflammatory action had extended to that part also.

Mrs. F., aged 27, married nine years; one child, which died three months after birth; tall, stout, pale. Abdomen large.

September 22.—Constant dragging weight of back, increased by standing or walking. Severe attacks of sharp pain over the symphisis pubis, extending to the back, lasting for some hours, and generally followed by diarrhœa. Pain on sitting down, and on the passage of solid fæces. Slight watery discharge.

Bowels confined. Piles. Urine clear. Much itching of the vagina and rectum, extending to the thighs, with redness. Tongue clean. Appetite good. Perspires easily.

Catamenia for the last three or four months have been irregular, coming at intervals of six or seven weeks, with much pain for a day or two before, and also during, the discharge, which is scanty, dark, watery, and with slight exudations.

Was under treatment last year and the year before; at one time leeches were applied to the os uteri three or four times a-week, for several weeks, according as her strength would bear it. Nitrate of silver was also applied several times; but at one period of the treatment potassa fusa was applied twice a-week for eight times. It produced acute pain of the spine and head.

Examination per vaginam—Retroversion. Os uteri hard and much injured by the caustic. I cannot pass the sound, for the canal of the cervix is too irritable for her to bear it, and it bleeds easily. The fundus also, as felt in the recto-vaginal sac, is very tender.

Examination per rectum.—The fundus is very painful; the left ovary can also be distinctly felt, and is exquisitely sensitive.

Pil. hydrarg. extr. hyosc. āā gr. v., alt. noct.

Mist. ferri sulph. et magnesiæ sulph. primo mane.

Acid. nitro-mur. cum taraxaco ex infuso cinchonæ oblongifoliæ, ter die.

Decoct. papaveris pro lotione.

29.—The morning medicine has acted well. The period has come with much less pain than usual, and has lasted a shorter time.

Rep. misturæ.

℞ Potassæ bicarb. ʒi., potassæ nitr. ʒss. M. Ft. pulv. sumat cochl. min. ½, post prandium.

December 12.—Feels very much better; the pubic pain is much less; the piles have disappeared; the passage of solid fæces still produces a little pain; the pain on sitting down is only felt occasionally; she has lost the irritation of the vagina; abdomen much smaller; tongue clean.

The catamenia have appeared twice since last report, very nearly at the regular periods, and with very much less pain both before and during the time. The discharge was of a good colour; the first time it lasted only one day; the second, it continued three days; each time it was quite natural in appearance, and gave great relief. Has much pain about the sacrum when she attempts to walk.

Examination per Vaginam.—The parts are less irritable, and admit of more careful examination. At the lower and anterior part of a very short cervix I feel a puckered fissure; it will not admit the sound; behind it is a hard body which is tender; but, except when this is pressed upon, the exa-

mination causes no pain. There is no bloody discharge. Rep. med.

January 8.—Better in every respect, but looks and feels weaker; still walks with pain and sense of weight across the loins; perspires slightly at night; the morning medicine makes her sick. Bowels confined; tongue furred. Rep. mist. cinchonæ. Pil. hydr. extr. coloc. co. extr. hyoscyami, āā ℈j. M. Ft. pil. xij., sumat. ij. h. s. p. r. n.

February 18.—Better, but pale. The catamenia have been regular, but pale and scanty.

℞ Ferri sulph. quinæ disulph. āā gr. ij., extr. hyoscyami, gr. v. M. Ft. pil. ij. bis die sumendæ.

Rep. Pil. hydr. coloc. et hyosc. p. r. n.

Sodæ potassio tart. primo mane.

In analyzing the symptoms which this patient presented in my first report of her case, it is difficult to distinguish those which were attributable to the presence of retroversion, from those which had been produced by the dreadful treatment which she had undergone; and I believe it will be the simplest view to call it retroversion in a highly irritable condition of the uterus. Most of the symptoms of which she complained may be referred to retroversion, but aggravated and modified by the state of the uterus. The irritability and tenderness of the os and cervix at the first examination were such that she could only bear me to ascertain their position and general condition. The fundus was more tender than is usually the case in retroversion of the healthy uterus; the state of the left ovary was of a similar character; it was an effect of retroversion, aggravated by severe uterine irritation.

At my second examination the parts had lost so much of their extreme tenderness that I could now ascertain the precise condition of the os, which bears severe and irreparable marks of the treatment it has undergone. As far as can be ascertained by the finger or uterine sound, I should have considered it closed; but the passage of the catamenia, and with tolerable ease since her health improved, shows that there must be a sufficient opening for this purpose; but at present I have abstained from doing anything, feeling that it will be highly desirable to give her the benefit of whatever favourable changes the return to better health might produce on these parts. In the mean while I have urged her to change her residence from the clay soil and damp foggy atmosphere in which she lives, to a higher, drier, and healthier locality.

I regret that I have not been able to form any very distinct notion of the symptoms for which she consulted this remarkably energetic practitioner; and perhaps some of your readers will be scarcely inclined to agree with me in the opinion, that her antecedents were probably much of the same character as in the previous cases:—A feeble, flabby woman, living in an unhealthy district, gets, what a distinguished contributor of yours calls, "asthenia Londinensis." Leucorrhœa and catamenial irregularity follow, with the pain of back, etc., from slight prolapsus. My own conviction is, that this was probably her early history; but, whatever that might have been, let me ask, What could possibly justify such treatment? The spinal, and even cerebral, irritation were well marked in this case, and no wonder that these effects were soon produced, when such a destructive agent as caustic potass was actually applied to the os and cervix twice a-week. One naturally asks, What was the object of such treatment? It surely could not be the old story of "ulceration," here! It would seem as if his intention was gradually to destroy a considerable portion of the os and cervix; but the question still remains unsolved,—What was the object? I have tried in vain to elicit from this patient any acknowledgment that a single symptom had been relieved by the course of treatment she underwent; on the contrary, the history of her suffering shows that it was terribly the reverse. The success of so different a line of treatment is also a powerful argument against such practice, which I think most of the Profession will agree with me in considering to have been unjustifiable in every sense of the word.

I propose, when her health is more fully restored, to dilate the os uteri and canal of the cervix; but these parts must have lost their morbid sensibility, and have assumed a healthier condition, before it would be right to attempt anything of this sort.

In my next report I will give the details of a somewhat similar case, but where the os was successfully dilated.

A FEW FACTS IN MORBID SOUNDS OF THE HEART, WITHOUT DISEASE AT ITS OPENINGS.

By JOHN ELLIOTSON, M.D. Cantab., F.R.S.

It is more than five and twenty years since I published cases of morbid sounds of the heart without disease at any of its openings. In the Lumleian lectures, published by me in 1830, I stated, at page 18, that "I once witnessed a remarkable instance of the temporary occurrence of this (the bellows) sound. In this case there was ascites; and the bellows sound, which was in the region of the left ventricle, instantly ceased on the removal of the fluid from the abdomen, and was not heard for several weeks, when the fluid again accumulated, and it again became audible." In my lectures on the practice of Medicine at University College, London, I invariably mentioned this case from 1831 to 1838 inclusively, and I find, in the editions of them published by Dr. Rogers and Mr. Lee, that I added the remark that, "after death, the opening was found healthy, but the left ventricle dilated. It appeared to me that the diaphragm, being pushed up by the water, *tilted the heart* a little, so that the passage of the blood into the aorta was a little impeded."

I have never met with such an instance again, nor had I ever heard of one, and I was, therefore, pleased on reading one recorded by Dr. Jenner in the *Medical Times and Gazette* of the first of last month. "When the abdomen is enormously distended," says this gentleman, "the relation between the ventricles and the orifice of the pulmonary artery and aorta is altered, and a murmur may be the consequence. A well marked case of this kind fell under my observation some time since: the patient was the subject of ovarian dropsy; at the base of her heart a loud blowing murmur was heard; whether generated in the heart or pulmonary arteries could not be determined; perhaps a murmur originated in both. She was tapped, and all murmur disappeared. In such cases the apex of the heart is tilted." P. 204.

As, notwithstanding my examination of the sounds of the heart in the numerous cases of peritoneal and ovarian dropsy, some of them of course enormous, that I have attended subsequently, I have not met with the same occurrence, I presume that the sound depended upon the tilted ventricle being morbidly dilated. In my patient the accumulation was not enormous, either in the first or in the second accumulation of fluid. Dr. Jenner does not mention that he was able to learn whether the sound in his case returned with a return of the accumulation of fluid, or that the heart laboured under dilatation—two important facts in my case; but he must be pleased equally with myself in recording his case in confirmation of mine, which he heard me detail in each course of my lectures attended by him in University College.

Among the many cases which I have seen of effusion into the left pleura, and of removal of the apex of the heart to the right side, I have never heard a morbid sound of the heart. Nor was one to be expected, because, the apex of the heart being pushed to the right, there can be no impediment to the exit of the blood into the aorta; whereas, when the heart is pushed upwards by the diaphragm, the apex will incline to the left, and the course of the blood into the aorta be, in some circumstances, more or less impeded.

In the same lectures, it will be found that I stated the observation made by me upon the similar effect of posture upon a morbid sound of the heart in some cases. "A patient was, some months ago, in St. Thomas's Hospital, in whom the recumbent posture produced it. She was a young woman, with chronic bronchitis, dyspnœa, livid lips, and œdematous legs, and afforded no bellows-sound while erect; but it became audible the moment she lay down." "I have since noticed the same fact in other cases of dyspnœa; and it shows the necessity of examining patients in both postures. By continuing the investigation of this point, I have ascertained that the preternatural sound heard with the pulse is generally louder, and often very much louder, in the recumbent posture; while the preternatural sound, when auricular, is louder, if anything, in the erect. The cause of the ventricular bellows-sound being less loud in the erect posture is, perhaps, that the ventricle is then drawn down more into a straight line with the aorta by the gravitation of the heart, and an easier exit given to the blood."—(Lumleian Lectures.)

At the period of my lectures, a difference of opinion existed as to narrowness of passage producing a morbid sound; and I therefore mentioned "our being able to produce the bellows-sound in the abdomen by compressing the abdominal aorta with a stethoscope; and to regulate its intensity by varying the degree of pressure."

In anæmia, the morbid sound in the neck may be increased, or even brought on altogether, by pressure with the stethoscope, or by turning the head very much round to the opposite shoulder; as is well known, and as I have done and do continually (a). I have, for several years since I ceased to lecture, been in the habit of increasing the morbid sounds of the openings of the heart, by making the patient, whatever his age, expire as forcibly as possible, and refrain from inspiring again as long as possible. This measure is useful in cases of doubtful morbid sounds of the heart; and I adopted it with the view of bringing the heart and the walls of the chest in as great proximity as possible, that its sounds might more perfectly reach my ear. But Dr. Peter Latham produced a morbid sound by pressing the walls of the chest upon the heart of a child, and Dr. Jenner has done it in many children, the parietes of whose chests are of course yielding, by moderate pressure with the stethoscope on the second left costal cartilage, or on the second left intercostal space, where the pressure would influence, he suggests, the pulmonary artery.

From the time when the production of a morbid cardiac sound by altered position of the heart first occurred in my practice, cases every now and then presented themselves to me in which examination after death showed no organic disease at an opening, nor any morbid condition of the pericardium; and I know many persons, male and female adults, now alive and well, who, some years ago, afforded cardiac preternatural sounds, not of friction of the pericardium, and at present afford none; so that, like many others, I have long ceased to regard a preternatural sound in the heart as alone indicative of a serious condition. In the child, youth, and young adult, cases of enlargement and strong action of the heart, with frictional sound or sounds, after pericarditis, are often recovered from completely after a long period; and I know at this moment many healthy adults, without anything morbid discoverable in their chests, whose condition of heart was frightful to me ten, fifteen, or twenty years ago. Nay, enlargement of the heart in adults not beyond the middle period of life, in whom there never had been signs of pericarditis, but in whom I found a preternatural sound at the base, strong and too frequent action and over too large a space, with dyspnœa, and great œdema of the lower extremites, I have seen recovered from perfectly; and I cannot at this moment detect, and for a length of time have been unable to detect, any sign of disease in them.

Again, I have known, and know, old persons, whose hearts had or have afforded a morbid systolic sound, discovered accidentally at the base of the heart, for many years, with no other symptom, and who had, or have, no idea of anything wrong in their chests. One gentleman, with a hernia, died rather more than a year ago of intestinal obstruction within a few days of his ninetieth year, in whom I had very long noticed a loud twanging systolic sound at the base of the heart: but, with the exception of his hernia, he enjoyed extraordinarily fine health, walking alone about the streets, and sitting at the bottom of his table at dinner parties like a man of sixty. I first noticed the sound seven years before his death, and how long it had existed I cannot tell.

I have, therefore, long since ceased to regard signs of diseased heart, and especially a mere preternatural sound, even at an opening, as necessarily indicating dangerous or irremediable disease.

I recollect hearing a loud bellows-sound invariably at the systole of a man's heart in St. Thomas's Hospital for a considerable time, that at length I heard at the diastole only: after death, the pericardium and all the openings were healthy, but the left ventricle was greatly dilated. I did not publish the case, because I feared I had been originally mistaken as to the period of the sound, especially as I did not meet with a similar example. But, a year ago, I did meet with another example of this change in the period of a morbid sound of the heart, and I had examined the case attentively and made careful notes. The patient may be still alive.

Conduit-street, Hanover-square, 1856.

(a) I presume it is generally known that anæmic morbid sound in the neck is lessened, and sometimes suspended, by a full expiration; and increased or restored by inspiration. The combination of keeping the head turned to the opposite side and abstaining from expiration after a forced inspiration has the most powerful effect: the patient, of course, not being in the recumbent posture, as anæmic sounds of the neck are often not heard at all unless the patient is sitting or standing.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING FEBRUARY.

(Concluded from page 314.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

EXCISION OF NON-MALIGNANT TUMOURS.

Case 1.—A woman, aged 27, under the care of Mr. Cock, in Guy's, on account of a large tumour involving the left deltoid muscle. It had been increasing for a year and nine months, and had not been attended by much pain. The skin, which was adherent, was dissected up, and the whole belly of the muscle, together with the acromion and the scapular extremity of the clavicle were excised. The tumour, which was a very large mass, showed a well characterised myeloid structure. Not much blood was lost, and the patient, who was emaciated and in very delicate health, recovered remarkably well. The shoulder-joint itself, although exposed, was not injured, and since the wound has healed a very fair degree of motion is possessed. *Case* 2.—A woman, aged 29, in good health, under the care of Mr. Cock, in Guy's, on account of a large mass in the right side of the neck, beneath the vessels and muscles. The tumour had been slowly increasing for thirteen years without any material pain. The carotid artery was pushed forwards quite superficially by it, a lobe projecting on its inner side, but the greater part lying external to it. Mr. Cock made a free incision upon the tumour, and carefully avoiding the surrounding vessels, etc., opened into the cellular investment by which it was encapsuled. This done, the tumour was very easily removed, possessing only attachments which the finger readily broke down. It proved to be a firm fibro-plastic growth, and was somewhat larger than a full-sized fist. The wound healed well. *Cases* 3, 4, and 5.—Fatty tumours in different parts of the body. In all the wounds healed well. *Case* 6.—A woman, aged 20, under Mr. Lawrence's care in St. Bartholomew's. Excision of a small mammary glandular tumour, of ten months' duration. Recovery. *Case* 7.—A woman, aged 22, under Mr. Wormald's care, in St. Bartholomew's. Excision of a warty excrescence from the skin of the chest. Recovery. *Case* 7.—A man, aged 27, under the care of Mr. Fergusson, in King's College, on account of a large polypus in the right nostril adherent in most parts. Three partial removals had previously been performed. Mr. Fergusson slit up the nostril, and effected the removal of the growth. Under treatment. *Case* 8.—A girl, aged 17, under Mr. Birkett's care in Guy's, on account of a large bursa in front of the knee-joint, containing fibrous bodies. Excision of the cyst by an incision over its outer boundary. The wound healed slowly, on account of erysipelas. *Case* 9.—A man, aged 69, under the care of Mr. Skey, in St. Bartholomew's, on account of a large parotid tumour over the left side of the face. It had existed twenty years, but had been small until within three months past. It was the size of a large orange, flattened and somewhat lobulated. The skin was reddened. There was no paralysis. Mr. Skey reflected a flap of skin, and dissected out the tumour. Very profuse hæmorrhage took place during the operation, and some large arterial branches required ligature. The wound is fast healing. *Case* 10.—A woman, aged 30, under the care of Mr. Skey, on account of an ulcerated induration in the upper lip, of doubtful nature. Excision. Recovery.

TREPHINING OF THE SKULL.

A boy, aged 15, under the eare of Mr. Skey, in St. Bartholomew's, on aeeount of injury to the head, in which the parietal bone had been laid bare, but not fraetured, was subjeeted to the operation of trephining twelve days after the aeeident, on aeeount of symptoms of abseess within the skull. A large quantity of matter was evacuated, but the boy sank four days afterwards. (We shall, at a future time, give the details of this ease.)

EXCISION OF BONES, CARIES, ETC.

Case 1.—A man, aged 23, under Mr. Stanley's eare, in St. Bartholomew's, on aeeount of earious disease of the tarsus. He had been in ill-health for seven years, and five years ago abseesses about the foot had formed. Two years ago, an operation for the removal of diseased bone had been performed in the Brighton Hospital, the sears of which were over the middle euneiform. The sinuses existing appeared to lead down to the remains of the same bone. Mr. Stanley earried free ineisions down in the eieatrix, and removed sueh portions of the bone as eould be found. The wound is doing well.

Case 2.—A boy, aged 13, was admitted under Mr. Stanley's care into St. Bartholomew's, on aeeount of a large bulla on the dorsal surfaee of the foot, beneath whieh was an abseess. Some time afterwards the bone was found to be diseased, and by a free ineision almost the entire length of the metatarsal bone of the great toe was taken away. It was all but detaehed at its extremities, and had lost its periosteum. The wound has sinee healed well, and the toe has shortened so as to be less in length than the one next to it.

Case 3.—A healthy man, aged 73, but looking younger, under the eare of Mr. Birkett, in Guy's, on aeeount of the irritation eaused by a small pieee of bone whieh had been detaehed in a eompound fraeture of the humerus seven months ago. The union of the fraeture had been perfeet, and the parts around were restored to a healthy state; exeepting that, imbedded in the substanee of the deltoid, was a fragment of hard bone, quite detaehed from the shaft. The man eomplained of the pain eaused by this, and wished it removed. It was almost subeutaneous, and the operation required eonsisted only in a small ineision through the skin. It was found conneeted with the musele, and apparently in a growing state. The wound had nearly healed, when suddenly, seven days after the operation, shiverings, and other symptoms of pyæmia, showed themselves. Death oeeurred five days later. At the autopsy, pus was found in the shoulder-joint, and also about the seat of the original injury. There were evidences of reeent peritonitis, and uleeration existed in the appendix vermiformis.

Case 4.—A ehild, under the eare of Mr. Birkett, in Guy's, on aeeount of diseased os ealcis. An incision was made, and the gouge applied. Under treatment.

Case 5.—A lad, under the eare of Mr. Coek, on aeeount of diseased earpus, whose ease has been several times mentioned before. At the last operation the euneiform bone was removed. The eondition of the hand is not unpromising, but the general health is failing, and there are indieations of advaneing phthisis.

Case 6.—A man, aged 30, under Mr. Coek's eare, in Guy's. A year ago the head of the metatarsal bone of the great toe had been removed, on aecount of earies. Mr. Cock now removed the whole of the first phalanx and the sesamoid bones. Mueh new bone was found deposited, and there is every probability that the man will have a useful toe. The parts are nearly healed.

Case 7.—A boy, aged 14, under Mr. Cock's eare, in Guy's, on aeeount of neerosis and earies in the head of the tibia. The eavity having been laid open by the aid of eutting forceps, a portion of dead bone, somewhat more than an inch in length, was removed, and earious parts adjaeent to it were eleared away by the gouge. The eavity extended elose up to the knee-joint, but did not quite open into it. The knee had for some time been bent at right angles. The eavity has filled up sinee the operation, and a good result is promised.

OPERATIONS FOR NECROSED BONE.

In twelve eases, patients have been subjected to operations for the removal of large sequestra from long bones. In all, the subsequent progress has been satisfaetory. In one instanee, a lad, under the eare of Mr. Cock, in Guy's, had acute pericarditis supervene suddeuly, about a fortnight after the operation, from whieh, for a few days, he was very ill. He is now, however, fast recovering.

OPERATION FOR CANCER OF THE PENIS.

A farming-man, aged 53, under the eare of Mr. Cock, in Guy's, on aeeount of epithelial eancer involving the prepuee and one side of the glans. He had not been the subjeet of eongenital phymosis. For fifteen months there had been prieking pain in the part, but the warty growths and uleeration had been noticed only three months. The inguinal glands were not enlarged. Mr. Coek eut away the diseased parts, ineluding the whole prepuee and one side of the glans. The urethra was laid bare, but not opened. The wound healed well.

OPERATIONS FOR URETHRAL STRICTURE.

Case 1.—A man aged 39, under the eare of Mr. Coek in Guy's, on aeeount of a strieture of old standing. He had been oeeasionally under Mr. Coek's treatment for several years. The stricture was not a very tight one, but extremely irritable. After the introduction of instruments, the man always suffered from most severe irritation, and it was this eondition whieh indueed Mr. Cock to advise perineal seetion. A staff, No. 3, having been introdueed, the affected traet of uretha was laid open. A flexible eatheter was retained for two days. The wound was soundly healed in a month, not a bad symptom having oeeurred. The urine is now passed in a good stream and without pain. *Case* 2.—A man aged 46, under Mr. Fergusson's eare in King's College, on aeeount of strieture of eight years' duration. Perineal seetion was performed. Doing well. *Case* 3.—A strong healthy looking man under Mr. Birkett's eare in Guy's, on aeeount of perineal fistulæ resulting from a strieture of ten years' duration. Perineal seetion of the stricture upon a grooved staff was performed. The wound was healthy for several days following the operation, and the man's eondition favourable. Rigors with siekness then oeeurred, and the man sank into a low desponding state. The wound continued to heal and had nearly elosed when he left the Hospital in order to have a ehange of air. He has improved in health sinee diseharged, and eontinues to pass a good stream of urine. Disease of the kidneys is suspected. *Case* 4.—A worn out, feeble man, aged 67, under the eare of Mr. Birkett in Guy's, on aeeount of numerous fistulæ in the perineum and scrotum. He had suffered from diseased urethra for six years. There was no diffieulty in passing an instrument into the bladder. With a view to the eure of the fistulæ, perineal section of the bulbous traet of the urethra was performed on a grooved staff. The operation was performed under ehloroform, and some blood was lost, but not very much. In the evening siekness eame on; he sank into eollapse and died ten hours after the operation. The autopsy showed fatty degeneration of most tissues, but there was no acute organie disease. The man was, from his state of health, a most unfavourable subjeet for an operation. *Case* 5.—A man aged 44, under Mr. Hilton's eare in Guy's, the subject of a tight strieture for 13 years. He had suffered severely from the eonsequenees of the stricture—irritability of the bladder and reetum, lumbar and hypogastrie pains, ete.,—and had been under treatment in many Hospitals, never with more than very temporary relief. Having sueeeeded in dilatation, with mercurial treatment, until a fair-sized staff eould be passed, Mr. Hilton performed perineal seetion of the strieture. After the operation, the man lost all his troubiesome symptoms, and progressed uninterruptedly well. The wound was quite healed at the end of three weeks, and two weeks later the patient was discharged, his stream of water being then of good size, and a large flexible eatheter easily admitted. *Case* 6.—A man, aged 42, in fair health, under the eare of Mr. Hilton, in Guy's, on aecount of strieture at the meatus of the urethra, eonsequent on eontraetion after sloughing phagedæna of the glans. The orifice would barely admit a fine probe. In eonsequenee of the obstruetion to the escape of urine, rupture of the urethra in the perinæum took place, and an abscess formed. An incision in the median line was made, opening freely into the urethra. Subsequently, the urethra, near its orifice, has been laid open, so as to secure a free means of escape, the condition produced being that of hypospadias. Under treatment and doing well. *Case* 7.—A boy, aged 14, was admitted into Guy's, under the eare of Mr. Birkett, on account of injury to the perinæum, from falling astride a bar of wood. There was retention of urine, and large extravasation into the perinæum.

He was in a condition of extreme prostration. The perinæum was incised, and a large quantity of blood and urine escaped. The urine flowed freely afterwards, and all the urgent symptoms were relieved. The wound healed well, and the lad made a good recovery. *Case* 8.—A man, aged 35, admitted under the care of Mr. Stanley, in St. Bartholomew's, in a drowsy, half-comatose state, from the effects of retention of urine. The bladder was not distended. There were fistulous openings in the perinæum, and a dense brawny induration, extending into the scrotum. A free incision was made into the perinæum, and the escape of urine took place. The man became delirious shortly afterwards, and death soon followed. At the autopsy, a stricture, impassable by the smallest probe, was found. The bladder was inflamed; the ureters and pelves of kidneys much dilated, and containing pus.

PUNCTURE OF THE BLADDER.

The case in which puncture of the bladder by the rectum had been performed by Mr. Skey in St. Bartholomew's has been discharged. The man now passes urine freely by the natural passage, and a No. 5 can be easily introduced. The case under Mr. Tudor's care on board the Dreadnought, remains under treatment. The canula has been removed but some urine still flows by the gut. The man's health is improving fast.

CONGENITAL STRICTURE OF RECTUM.

An infant, aged 15 months, under the care of Mr. Cock, in Guy's, on account of a congenital stricture at the external aperture of the anus. The internal sphincter, and the gut above, appeared quite healthy. The opening would but just admit a probe. Mr. Cock made a free incision directly backwards, and the wound has been kept dilated during the healing. The healing is now complete, and not much tendency to contraction is as yet shown.

AMUSSAT'S OPERATION FOR ARTIFICIAL ANUS.

A woman, aged 30, under the care of Mr. Curling, in the London, on account of carcinomatous stricture of the rectum. The disease was not of long duration, but it had produced such occlusion of the gut, that the bowels had been obstinately constipated for a month. Mr. Curling opened the colon in the left loin, after the manner practised by Amussat. The gut was found contracted, and the peritoneum had to be divided before it was reached. Fæces have subsequently escaped freely. The woman had no ill symptoms after the operation, and is now (one month) doing as well as could be expected.

OPERATIONS FOR NÆVUS.

Case 1.—An infant, aged 9 months, under Mr. Birkett's care in Guy's. The nævus was subcutaneous, and situated on the tip and side of the nose. The skin having been reflected, the nævus was excised. The wound healed well. *Case* 2.—An infant, aged 15 months, under Mr. Wormald's care, in St. Bartholomew's. The nævus was subcutaneous, and situated on the cheek. The skin was reflected, and the nævus tied. Recovered. *Case* 3.—An infant, aged 13 months, under Mr. Lloyd's care in St. Bartholomew's, on account of a large nævus in the back of the neck. Injection with sal volatile has been practised, and subsequently the application of potassa fusa. Under treatment.

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Medical Times & Gazette.

SATURDAY, APRIL 5.

MR. HEADLAM'S MEDICAL REFORM BILL.

The committal of the New Medical Reform Bill having been fixed for Wednesday last, there was a strong muster of Members in the House of Commons at the appointed time, and a host of amendments had been proposed to the details of the measure. It will be seen by our Parliamentary Report, that the Government, which formerly supported Mr. Headlam, divided against him, and carried an amendment by which the Bill is postponed for a week. We believe that we are correct in stating that this is virtually a defeat of the Bill. Our own opinion throughout has been that the Bill could not pass, in consequence of the numerous conflicting interests which were involved in its enactments; and the result has shown that our view of the matter was correct. The tergiversation of the Government on this question has been made the subject of very bitter comment, as the Ministry at first supported the Bill, and then voted against it; but we believe that the circumstance is to be explained by the fact, that erroneous representations were made as to the unanimity prevailing among the Medical public in favour of the Bill—a unanimity which assuredly did not exist; and when the offices of the Secretary of State for the Home Department and of the President of the Board of Health were besieged by Deputations against Mr. Headlam's measure, the Government began to discover the mistake which had been committed. Our recapitulation, in our leading article last week, of the various opinions entertained of the Bill by the different Corporations and communities affected by its provisions, we have reason to believe to be perfectly correct; and we are gratified to find that that article has made considerable impression upon the Legislature and the public. We may remark that, at the very large meeting held to celebrate the festival of the Royal Medical Benevolent College, the news of the defeat of the Medical Reform Bill was received with immense cheering; and our own opinion is strengthened daily in the belief, that its passing into a law would give almost universal dissatisfaction.

But while we regard the Bill as shelved for the present, we entertain an expectation that the Government will do something towards effecting some improvement in the laws relating to our Profession during the present Session; and we think it not improbable, that some plan, in accordance with the ideas which we have already shadowed forth, will be proposed by Mr. Cowper, the President of the Board of Health. If we can procure some recognition of our claims to representation in the Legislature; if Government would so far interfere as to promote internal reform in the different Medical Corporations; if we could succeed in obtaining something like an authorized Register of legally-educated Practitioners; some instalments, at any rate, might then be secured towards a settlement of the Medical Reform question, and the agitation upon the subject will not have been excited in vain.

LONDON AIR AND LONDON STREETS.

That London air, or, more properly speaking, the air of great towns in general, is not so wholesome as country air, is a thing which scarcely needs assertion; and as attainment of purity of air is justly the object of at least one-half of the efforts of sanitary reformers, we shall not be wasting the time of our readers if we devote a few lines to the subject.

Man may be regarded as living at the bottom of an immense ocean of air, which, like the ocean of water, has its tides and currents, and is liable to vary in its properties through its power of dissolving or of being intermixed with substances with which it comes in contact, and the purity of which is restored partly by the influence of vegetation, and partly by its ceaseless circulation, whereby all foreign substances suspended in it are diluted and decomposed in the course of the incessant chemical and electric changes which take place in it. Of the various sources of impurity, the presence of man and animals may be considered as the most important, and it is that to which nature seems to have provided an antidote in the powers of the vegetable world. Plants, under light and sunshine, renovate the air with fresh streams of oxygen, and deprive it of the rank vapours with which animal bodies have contaminated it.

Two circumstances there must be, then, in all town air, which render it comparatively impure: the abundant presence of animals, and the absence of vegetation. Now, these are things quite unavoidable. Heaven forbid that grass should grow in our streets! If there were anything like a wise foresight or economy displayed in the laying out of streets, we should have large spaces reserved for shrubs and gardens, in order to promote freer circulation and greater purity of air, as well as for the comfort of the eye. Yet the tendencies of the changes which are taking place are quite in the opposite direction. The New Road, that extends from Kensington Gardens into the heart of the City, might have been a magnificent boulevard, with gardens, or at least a row of trees on each side. But the gardens which once existed in front of the houses are rapidly being built over, and a broad, healthy avenue converted into a close and narrow street. The same kind of deterioration is taking place in all the suburban thoroughfares. May we add, that even Hyde-park is being changed for the worse? Broad gravel paths, or rather roads fenced in with rails, are being multiplied over it in every direction; huge strips of the "living turf" are being removed, and the staid and formal aspect of a "trim garden" is being substituted for that natural wildness which was once the happy characteristic of this most important breathing space. We confess that we begrudge the loss of one particle of green vegetation, with its air-purifying powers, and still more the less of that freedom of space and untutored beauty so refreshing to the brick-and-mortar-sated spirit. What if the people do trample on the turf, and wear it away? Let them enjoy this cheap luxury for their toil-worn feet. A broad gravel walk has no such charm in it.

It is not to be denied, however, that our houses must be packed closely, and that our green spaces must be few and far between; and we may then ask, whether nothing can be done to lessen the impurity and unpleasantness of London air? This question we think can easily be answered.

If the atmosphere has the property of being mixed with emanations from the substances over which it passes, it is not difficult to conceive what must be the effect of its traversing London streets in the summer time, covered as they are with a thick coating of animal matter, which is profusely watered, and exposed to the rays of the sun.

We ourselves never fail to remark, when returning in the summer-time from a country excursion, what a saddening, sickening, peculiarly depressing influence, both on mind and body, is produced by the emanations from the first great thoroughfare we enter. Nor, indeed, can it well be otherwise. Tons of water are daily thrown upon the surface, and allowed to evaporate; and the surface upon which they are thrown is covered with animal *débris*. Hence the air is loaded with fetid moisture, and every street in London is a marsh on a small scale.

Now, this is a preventible evil. It requires only an extension of the scavenging system, and a kind of harmony to be established between the scavenging and the watering. Infinitely more pains ought to be taken to keep the streets clean. It is not thrice a-week but thrice a-day that they require to be swept of their refuse. Nor is there any difficulty in this. It has been done already in some parts of London, by scavengers appointed and paid by a voluntary charitable association, and it ought to be done everywhere. There can be no excuse whatever for allowing three or four inches of stinking mud to remain, under a July sun, on a granite pavement, as is sometimes the case in Piccadilly, and still more often in the New-road. On a macadamized road, perfect cleanliness may not be attainable; on a well-laid granite pavement there can be no valid excuse for dirt. The street may be and ought to be swept clean and be constantly kept so.

Nor can it be said that any expenditure that might be incurred for this purpose would be incurred fruitlessly or wastefully. London society may be divided into two classes: those who have to spend money, and those who have to make money. It is of essential consequence to the latter that the former should be induced to make their season-sojourn in town as long as possible; and we need scarcely say that the insalubrity of the London air is used as a pretext for going out of town by many persons, long before the period of London gaiety has come to an end. Any expense, therefore, incurred in improved modes of street-cleansing would soon be repaid. The trading part of the community would find additional rates amply compensated by the prolonged sojourn of the fashionable world.

THE WEEK.

The Anniversary Festival of the Royal Medical Benevolent College was held at the Freemason's Tavern, on Wednesday last, under the Presidency of the Lord Mayor. The meeting was very numerous, and the feeling in favour of the Institution was enthusiastic. The subscriptions announced were very liberal, amounting to about £4000. It was stated by Mr. Propert, that the College was now free from debt, but it was justly urged that continued support was necessary to maintain it in its present efficient working condition. The School is now in full operation; and several of the decayed members of our Profession are now enjoying the home which the College affords to them. Mr. Propert has every reason to feel abundantly gratified at the success of his noble and disinterested efforts.

The Vaccination Bill was read a second time in the House of Commons on Monday last. During the debate, Dr. Michell, who is, we believe, a Medical man, delivered himself of some of the most extravagant absurdities which were ever uttered and appears to have excited a perfect storm of well-merited derision. We can hardly believe the accuracy of the report which states the opinion delivered by this gentleman "that small-pox would scarcely be heard of in the present day, *had not Vaccination been introduced!*" Dr. Michell's assertions are to us perfectly incomprehensible, and his reasonings utterly unintelligible. He objects to Vaccination, it appears, "because it gives no sort of protection against small-pox; and, in the second place, *because it induces paralysis! leprosy!! and other diseases!!!*" We are amazed to find also, that while these frightful diseases are caused by Vaccination, small-pox is a positive benefit, "for it leaves the patient more healthy than before, *and often cures the king's evil!!!*" In contrast to this mild and beneficent operation of small-pox, cow-pox inoculation is said by Dr. Michell often to end fatally, and, but for the present Bill, "if a person were vaccinated against

his will, and death ensued, it would be *legal murder* or *manslaughter* at the least!!!!" On reading this speech we rub our eyes and wonder whether we are asleep or awake; whether we or Dr. Michell are in a sane state of mind or otherwise; whether he is or is not a member of our Profession; and whether the statistics of Vaccination accumulated during many years have or have not any value. Our own impression is, that Dr. Michell must have been misunderstood by the Parliamentary reporters, for such unmitigated nonsense as that to which we have alluded could surely never have been uttered by a man who has received any Medical education, or indeed any education at all.

A horrible exhibition took place on Monday morning last before the gaol of Newgate, when a wretched criminal was executed for the murder of his wife and children. We confess to our own first crude impression, that this person was insane when he committed the murderous deeds which brought him to trial; but no evidence whatever was adduced to show that he had ever laboured under aberration of intellect, and he was, therefore, justly condemned to suffer the extreme penalty of the law. He appears to have been aware of the efficacy of the plea of insanity in criminal cases, and made some clumsy and ineffectual efforts to simulate mental derangement. He was carried in a chair to the gallows, and from some awkwardness arising from this and other circumstances, his dying struggles were prolonged to a considerable period. The probable explanation of the protracted sufferings of this wretch is to be found in the fact, that he was hanged in the sitting posture, and the fall was not so sudden or so violent as under ordinary circumstances. It also appears that the executioner undoubtedly performed his duty in a clumsy manner, in consequence of his state of fear and nervousness, from his having received a threatening letter, announcing an intention to shoot him when he appeared on the gallows.

In the Quarterly Report of Dr. Letheby, which we publish in another part of our journal, notice is taken of a very dangerous practice which has long been prevalent, of taking patients infected with typhus fever to the Fever Hospital in street cabs. On several occasions we have drawn attention to this very improper mode of conveyance, but the practice, we regret to find, still continues. To Medical readers it is unnecessary to point out the great hazard to the community which is incurred by such an employment of street cabs, and now that Dr. Letheby has drawn public attention to the circumstance, we trust that some other mode of conveyance will be enforced. The plan of providing horizontal ambulances drawn by a horse each is an easy one, and would obviate the dangers of the present system. We regret to find by the same Report, that, while the general mortality of the City of London is below the average, the deaths from typhus fever are considerably above it; the deaths during the quarter just ended being 44, while the annual average mortality from typhus in the City is 141.

Authentic information from the Crimea represents our Army to be in a most healthy and efficient condition, while the armies of our Allies appear to be suffering from disease to a very lamentable extent. The great publicity given to the statements concerning the privations and sufferings of our own troops has, no doubt, had the effect of arousing the generosity of the British nation, and securing to our brave soldiers those hygienic arrangements by which their health has been preserved, and their lives have been saved. It is a trite observation, that disease and privation destroy more soldiers than the sword of the enemy; and never was the truth of the remark more amply shown than in the course of the late war. Never, too, was the value of sanitary changes more amply proved than in the conversion of the British camp from a focus of sickness and death into the abode of healthy and active troops, ready for any encounter in which they may be called upon to engage. Their fighting powers, however, are not likely now to be called again into requisition.

FOREIGN CORRESPONDENCE.

FRANCE.

(From our Paris Correspondent.)

Paris, March 31, 1856.

There is much said here about the fee given to Professor Paul Dubois for having attended the Empress. Many thought he was to have 200,000 francs, as his father, Antoine Dubois, had received 100,000 for having attended Marie Louise, the first Empress, when she gave birth to the King of Rome. The generosity of the present Emperor being much greater than that of his uncle, and the value of everything being now about the double of what it was in the beginning of this century, it was expected that Professor Paul Dubois should receive at least the double of what his father received, in similar circumstances. Instead of that, he did not receive more than 30,000 francs, that is, not quite one-third of his father's fee.

The Académie de Médicine has been engaged in a very long discussion upon the usefulness of the occlusion of the eyes in cases of diseases of these organs. The originator of this discussion is a Military Physician, M. Bonnafont, who thought, when he made his first communication to the Academy, that the occlusion of the lids was the best means of treatment for almost every kind of ophthalmia. He states, that 18 patients treated for purulent or simple ophthalmia, general or partial, have all been cured in about thirteen days.

M. Hipp. Larrey, who had long before M. Bonnafont employed the same means, thinks that the cases where it may be useful are the following:—In mechanical injuries to the globe of the eye, such as wounds, contusion, and commotion; ophthalmoptosia, exophthalmia, congestion, hydrophthalmia, and the different kinds of ophthalmia. The occlusion of the eyelids is particularly important in cases of ulceration of the cornea, of keratitis, of staphyloma, and diseases of the iris.

Professor Velpeau does not agree with his colleagues as to the efficacy of the occlusion of the eye. He states, that by other modes of treatment a cure is as quickly obtained, if not much quicker, than by occlusion. He admits, nevertheless, that sometimes occlusion may prove useful, as, for instance, in cases of conjunctivitis and keratitis, and after wounds of the globe of the eye.

A modification has been recently made in the organization of the Academy of Medicine. The number of the *associés* will be increased, and the number of correspondents diminished. There will be, for the future, 20 foreign *associés* and 20 French. The number of French corresponding members will be brought down to 100, and the number of foreign corresponding members to 50. Until these reductions have been obtained there will be only one election for three vacancies.

In a recent communication to the *Société de Biologie*, Dr. Brown-Sequard has almost completed the exposition of the results of his researches upon the physiology and pathology of the supra-renal capsules. He has found that the extirpation of the two capsules in dogs, cats, rabbits, and guinea-pigs is a cause of very rapid death. In rabbits the average duration of life after this operation is 9 hours; out of 25 animals of this species, only 1 survived 13 hours, and almost all lived 8, 9, or 10 hours only. In adult dogs and cats the average length of life has been 14 hours, and the greatest period has been 17 hours. In newly-born kittens life lasted, in one case 38 hours, in a second 49. After the extirpation of only one of the supra-renal capsules, life lasted 15 or 16 hours, on an average, in rabbits and guinea-pigs, and 27 hours, on an average, in dogs and cats.

At the last weekly meeting of the *Académie des Sciences* two lists of candidates were presented to the Academy, for the vacant place of Majendie, by the sections of Medicine and Surgery. One of these lists contains the names of the candidates

who are Physicians; the other is a list of Surgeons. The first one contains the names of Cruveilhier and Longet on the first line, and of Piorry and Poiseuille on the second line. The list of Surgeons contains the names of Jobert de Lamballe and Jules Guérin on the first line, and of Malgaigne, Laugier, and Baudens on the second line. The election is to take place to-day.

P.S.—M. Jobert de Lamballe has been elected to-day a Member of the Academy of Sciences. He had 29 votes, and Longet 28. No election has been more disputed.

PROVINCIAL CORRESPONDENCE.

IRELAND.

(From our Dublin Correspondent.)

DUBLIN, MARCH 31, 1856.

The vacant Professorship of Chemistry, Queen's College, Galway, has, I understand, been filled by the appointment by the Lord Lieutenant, of a Scotch Gentleman, Thomas H. Rowney. Ph.D., late assistant to Dr. Anderson, in the Laboratory of the Glasgow University. Like the late Professor, Dr. Rowney does not appear to have received a Medical education, which is probably not considered essential, as chemistry, in the Queen's College, is included under the faculty, not of Medicine, but of Arts.

The election of a Professor of Botany in Trinity College, in the room of Dr. Allmann, now Professor of Natural History in the University of Edinburgh, is fixed to take place on the 4th of May; the emoluments consist in an annual salary of £200, the pupils fees at three guineas for each, and also a share in the fees derived from clinical teaching at Sir Patrick Dun's Hospital, the latter being one of the duties imposed by the Act of Parliament under which this Professorship was created; it is consequently necessary that the candidates must be practising Physicians. According to this Act, the Professorship is "open to Protestants of all nations, provided they shall have taken Medical degrees, or shall have obtained a licence to practise from the King and Queen's College of Physicians, in consequence of a *testimonium* under the seal of Trinity College, Dublin." All persons intending to offer themselves as candidates, are to send in their names, the places of their education, the Universities in which they have taken their Medical degrees, and the places where they have practised, to the Registrar of the University of Dublin, and to the Registrar of the College of Physicians. I give you these particulars inasmuch as the official advertisement appears once only in the London and in the Dublin *Gazette*, and is consequently not seen by the Profession.

The newly-elected President of the Royal Irish Academy, the Rev. Dr. Todd, has nominated as his Vice-Presidents the following gentlemen: George Petrie, LL.D.; Sir Robert Kane, M.D., F.R.S.; James Apjohn, M.D., F.A.S.; and the Rev. George Sydney Smith, D.D.

An evening meeting of the Royal Dublin Society took place on Friday the 28th inst. After an interesting paper by Dr. Lamprey, on the Physical Characters of the Aborigines of Ceylon, the standards of length and weight recently presented to the Society by His Excellency the Lord Lieutenant were exhibited by Dr. Barker. Dr. Barker stated that the standard yard was made of gun metal, composed of 16 parts of copper, 2½ of tin, and 1 of zinc. The standard pound was obtained by calculating the weight of a cubic inch of water. Some discussion having arisen as to the conditions on which these weights and measures had been given to the Society, viz., that they are not to be used except in the presence of scientific men, Dr. Barker suggested that accurate measures of length and weight should be formed from them, which might be consulted by the public.

A deputation from the Apothecaries' Company had the honour of an audience with the Lord Lieutenant, at the Castle, on Friday, the 28th inst., on the subject of the Medical Bill at present before Parliament. His Excellency entered at considerable length into the points brought under his notice by the deputation, who were much gratified with their reception, and by the attention paid by His Excellency to the subject of their interview.

The pressure on your space, which has occasioned delay in the publication of some of my letters, has thrown me into arrear with the proceedings of the Pathological Society, of which I am anxious to give you a consecutive, though necessarily very brief account. At the meeting of the 26th of January, Dr. Stokes presiding, Dr. Banks detailed a case of encysted abscess of the right lobe of the cerebellum, occurring in a woman aged 40, apparently caused by a sudden and severe mental shock, and running a course of some weeks before its fatal termination. Dr. Beatty brought forward a case of ovarian tumour with dropsy, tapped on the 19th of May, 15th of August, and 3rd of November, 1855, on which occasions, respectively, thirty-six, forty-seven, and thirty-five pints of fluid were drawn off. Subsequently to the last operation, the abdomen filled again, the umbilicus becoming extremely prominent. On the 3rd of January, while a repetition of the operation was under consideration, the prominent umbilicus ulcerated, and through the opening so produced thirty-four pints of fluid were evacuated. This occurrence was, however, followed by an attack of rather obscure peritonitis, which proved fatal on the 20th of the same month. On post-mortem examination, the abdomen was found full of the fluid effused in peritonitis. The peritoneum was covered with lymph, and the transverse colon was tied down by bands to the tumour, which was as large as the head of an adult, and proved to be a multilocular ovary, in which purulent matter was deposited. The tumour contained in its cells the jelly-like fluid usually observed in such cases. The intestines were matted together. Mr. Hamilton presented two specimens of disease of the bones of the foot; and Dr. Fleming, one of disease of the urinary organs. On the 2nd of February, Mr. Hamilton exhibited two preparations illustrative of suicidal wounds of the throat, and Mr. Collis brought forward a specimen of disease of the ankle-joint and tibia from a case in which amputation immediately above the knee-joint had been performed by Mr. George Porter; in this operation Dr. Biggers' improved saw had been used for the first time. Dr. Lees detailed a case of maculated typhus fever, in which convulsions occurred on the fourteenth day, apparently in consequence of uræmic poisoning; for, while urea was found in appreciable quantity by Mr. Charles H. Leet in the blood and serum taken from the brain and its vessels, scarcely a trace of that principle was to be discovered in the urine, which was, moreover, secreted in very small quantity. The small intestines were in a healthy condition; there was no affection of Peyer's glands. Dr. Gordon brought forward a case of hepatic abscess, opening through the lung into the right pleura, thus affording an example of a very rare cause of pneumothorax. This case was further interesting as an instance of *primary* suppurative inflammation of the liver. On post-mortem examination, this organ was found to be so much displaced downwards as almost to touch the pubes. Dr. Lees exhibited a specimen of very large simple ulcer of the stomach, taken by Mr. Ledwich from the body of a woman aged about 50, in which two diseased supra-renal capsules were also found; these were abnormally large, and contained tubercular deposits. Mr. Ledwich's attention was directed to these organs by a peculiar yellowish-brown appearance of the skin, and the case, he considered, tended to confirm Dr. Addison's observations.

Being unwilling to extend my letter to what would, under existing circumstances, necessarily be to you an inconvenient length, I shall hold over, for the present, my report of the recent meetings of the Association of the College of Physicians.

GENERAL CORRESPONDENCE.

MR. TREVOR-ROPER AND THE AKBAR REFORMATORY SCHOOL.

[To the Editor of the Medical Times and Gazette.]

SIR,—I have seen in your columns reflections on my conduct, under the signature "Lancastria," and request the favour of your inserting this communication.

For the opinion of "Lancastria," or any other anonymous writer, I care nothing, nor shall I now, or in future, reply to the attacks of those who withhold their name and address, (whatever be their motive). I cannot respect a man who acts in such a way, and should esteem it beneath me even to take

notice of the present unjust and false accusation, were it not that I am anxious to have (what I am not conscious of having done anything to lose) the respect of my Professional brethren.

The facts of the case are as follow:—About the month of June last, one of the Committee of the Akbar scheme informed me that such an Institution was contemplated, and that ultimately the ship would be moored in my immediate neighbourhood. He added that it was to be supported entirely by voluntary subscription, that there were as yet no paid officers, that a clergyman had already offered his services as Chaplain, and urged me to act in like manner, upon which I wrote the letter annexed. When I did this, I considered that I was only following the example of the most eminent men in our Profession, and looked upon the appointment as similar to that of an Honorary Officer to an Hospital.

I have sufficient confidence in the liberality and charitable feeling of those who, under a mistaken view of the case, have taken umbrage at my proceedings, to believe that they would have done likewise under the same circumstances; and I should not have thought it possible that one would have refused to co-operate thus with so laudable a scheme, had not "Lancastria" in his own letter said so of himself.

My application was made in July last, and I mentioned what I had done to the only other candidate with whom I was on terms of intimate friendship. I received no reply from the Committee, and have since learned that mine was not the first application, (see the letter from the Chairman of the Committee,) and from their silence I thought the matter had dropped; therefore, I never canvassed a single individual, and the only step taken by me was on the day of election, to obtain one letter, testifying as to my Professional and private standing.

Referring all who may feel an interest in the subject to the correspondence annexed, I am, &c.

GEORGE TREVOR-ROPER.

Tranmere, March 26, 1856.

P.S. The passages in the letter of the Chairman of the Committee, to which I wish particularly to draw attention, are italicised by myself.

(Copy.)

To the Chairman of the Committee of the Liverpool Reformatory Institution.

Sir,—I have seen with feelings of deep interest the Prospectus of the above admirable Institution, and am anxious to be permitted to take some part in promoting its object.

Were my means commensurate with my good will, I would most gladly do so by a subscription; but as I am at present situated, this is not in my power.

I beg, therefore, very respectfully to offer my services as Medical Officer to the Institution for the space of twelve months from its commencement, unless you should deem it advisable to appoint some one else. Of course, I look for no remuneration, but shall rather esteem it a privilege to be allowed to co-operate.

For any inquiries you may wish to make, (should you entertain my proposal,) I beg to refer you to the following gentlemen. I remain, very respectfully,

Your obedient servant,

GEO. TREVOR-ROPER.

Referees ———

Tranmere, Cheshire, July 14, 1855.

(Copy.)

To the Committee of the School Frigate Akbar.

Gentlemen,—An attack having been made upon me in reference to my appointment as Honorary Surgeon to the Akbar, I shall feel much obliged by your stating to me whether all the candidates did not understand, prior to your decision in my favour, that the appointment would be an honorary one, and that any Medical gentleman giving his services for a time (until the Reformatory School was fairly in operation) would be considered by the Committee in the light of a subscription to assist in establishing so valuable an Institution.

Such, at least, is the view I have taken of the case, as proof of which I beg to refer you to my letter on the subject written some months since, and at a time when I was not aware of there being any other candidate in the field.

When I wrote that letter I was under the impression that a gentleman had volunteered his gratuitous services as Superintendent of the Ship, and that a clergyman had also volunteered his as Chaplain, in fact, that there were no salaried officers in connexion with it, but that those who had come forward did so with the desire to promote its interests.

Under these circumstances, I did not feel it at all derogatory to any gentleman of my Profession to act likewise.

I shall also feel obliged by your stating what place in point of priority of application my letter to you held.

If you could favour me with the letter itself, or a copy of it, it would further oblige,

Yours respectfully,

Tranmere, March 17, 1856. GEO. TREVOR-ROPER.

(Copy.)

Liverpool, March 18, 1856.

Dear Sir,—The Committee of the Juvenile Reformatory Association have requested me to acknowledge the receipt of your favour of the 17th inst., calling their attention to a letter in the *Medical Times and Gazette* of the 8th inst., containing an ungenerous and unfair attack upon yourself, in connexion with your appointment as Honorary Surgeon to their School Frigate Akbar; and also to state the facts connected with that appointment, which you are at liberty to publish if you think proper. The Akbar School Frigate (part of the Reformatory Institution proposed to be established in connexion with this town) has not been got up by the magistrates, but by voluntary effort and subscription, and is a charitable institution, similar to any of the many other charitable establishments of which there are so many in the town, and to which the first of our Medical men are willing and anxious to give their services gratuitously.

The Committee do not wish to give an opinion as to whether or not Medical men ought to give their services gratuitously to the different charities of the town; but so long as it is the general practice for them to do so, the Committee see no reason why reformatories should be placed on a different footing.

Taking this view, the Committee expected that the Medical men on the Cheshire side of the Mersey (where the Akbar is moored) would be quite willing to do what their brethren on this side do, and would offer to attend their School Ship gratuitously; and such was the case, *as all the candidates*, and I believe they were the first men of the Profession, *stated to myself, and to the Committee before the election took place, that they were willing to give their services gratuitously.*

The Committee *did not at once close with your offer*, as the writer in the *Medical Times and Gazette* states. They had an interview with all the candidates except one, who could not personally attend, and they examined their testimonials; and (although I am bound to say the other gentlemen were of the highest respectability and standing) you were unanimously elected.

The writer in the *Medical Times and Gazette* is also in error as to the distance from your house to where the Akbar lies at present, it being about two miles instead of four or five; and there is a probability of her being moored opposite to Rock Ferry, which was mentioned to all the candidates before the election.

I return your kind offer of your services, *which was the second the Committee received*, and

I remain yours faithfully,

THOMAS D. ANDERSON, Chairman.

G. Trevor-Roper, Esq.

SAFETY OF CHLOROFORM IN GUN-SHOT WOUNDS.

[To the Editor of the Medical Times and Gazette.]

SIR,—I do not think Mr. Flower is exactly correct in saying that we have had no trial of chloroform on a large scale in gun-shot wounds before the present war; for in the year 1848, I gave in your own pages the result of 1600 cases of gun-shot wounds, only a moiety of a vast number of similar cases which I saw treated in Paris after the dreadful revolution of that year. I then dwelt (too perseveringly some thought) on the inestimable value of chloroform as I saw it used every day in Paris, by M. Roux, M. Jobert, M. Velpeau, etc.; it seemed settled also to the satisfaction of all observant readers, that

primary amputations, as taught by the Paris Surgeons, should be the rule in all future battles —secondary amputations, except at the hip-joint, the exception. But I was not then aware of the mass of old cobwebbed prejudices of the elder Military Surgeons I was attacking.

We have now abundant evidence of the truth of the opinions then advanced in Fenwick's 3486 amputations in Civil Hospitals, and 4937 amputations in the field of battle. In those frightful engagements in Hungary, in the year 1849, described at the period in the *Times* newspaper, there were 6000 wounded also at one time under Surgical and chloroform treatment. In this year, also, Lord Gough's battles in India, at Chillianwallah, etc., all which I noted, took place, and chloroform was used extensively; so that we have had ample opportunities of observing its good effects. I think I have seen myself also, something like an average of 700 or 800 operations in London Hospitals, every year since 1849, under chloroform, and every year only serves to show the inestimable character of the boon which Professor Simpson has conferred on Surgery. With what dismay I read Mr. Guthrie's directions as to chloroform, or those of Sir J. Hall during the late campaign in the Crimea, may not now be dwelt upon. Chloroform has fairly outlived all routine and Peninsular precedents, and has opened out a new era in conservative and Military Surgery.

I am, &c. Charles Kidd, M.D.

Kingsland, March 31.

LEUCOCYTHÆMIA OF BENNETT.

[To the Editor of the Medical Times and Gazette.]

Sir,—As your Correspondent, E. T., wishes me to inform him "what pathological condition Dr. Bennett did discover," I beg to say, that it was an entirely new morbid state of the blood, consisting of numerous colourless cells associated with a diminished number of coloured ones, in connexion with enlargement of the spleen, liver, and mesenteric glands. This condition, he demonstrated, was in no way dependent on inflammation, and he minutely and correctly described the appearances and structure of the blood, glands, and other textures in the body. That he first described the disease seems to be admitted by E. T., as well as by Dr. Murchison; notwithstanding, both your correspondents argue that he was not the discoverer, because Virchow gave a more correct theory of its production. What I contend for is, that correct or incorrect theories have nothing to do with who was the discoverer. If it be admitted that Dr. Bennett was the first to separate this disease from pre-existing ones, and to describe it so carefully that it was capable of being at once recognized by others, any subsequent theory of its nature cannot affect his discovery. Is Dr. Bright less the discoverer of the disease which bears his name, because subsequent observations have shown its true nature to be a fatty or a waxy degeneration? I am satisfied, Mr. Editor, that you and your readers must see the difficulty of allowing a discovery to rest upon opinions rather than facts. Suppose, as science advances, it should turn out that the corpuscles, so carefully described by Dr. Bennett, are, after all, neither the colourless cells of the blood, nor those of pus, or, as is more probable, that they are identical, who, in the opinion of your correspondent, would be the discoverer then? Can it be a third party, who, accepting the facts of Professors Bennett and Virchow, may bring forth another theory regarding them? I think not, and therefore I claim for Dr. Bennett the discovery of Leucocythæmia, in consequence of his facts, his careful descriptions, and the distinction he draws between the condition of the blood and all previously known diseases. Whether the cells he described be the colourless corpuscles of the blood, or pus corpuscles, has nothing to do with the question.

As to names, so far as a discovery is concerned, they are of secondary importance. But as we must have a new name to distinguish a new disease, let it be a correct one. Professor Virchow's name of "Leuchæmia," or "white blood," is most erroneous; 1st, because the blood is not white, but red; and, 2nd, because a white, chylous condition of the blood was previously known in Pathology, for which the designation has been very properly claimed, by persons no less distinguished than MM. Caventou, Lecanu, Chatin, Collineau, Gibert, and Guerard. (See discussion in the Academy of Medicine at Paris, January 29, 1856.) But this white blood is altogether a different state of that fluid discovered by Professor Bennett, who has, further, the merit of having proposed for it a name which can lead to no confusion in science, because it simply expresses a truth, viz., white cell blood, or *Leucocythemia*.

I am, &c. L. O.

HOW ARE THE OFFICERS OF HEALTH TO OBTAIN THE MORTALITY RETURNS OF THEIR DISTRICTS?

[To the Editor of the Medical Times and Gazette.]

Sir,—I find that the newly-appointed Officers of Health have in some districts a difficulty in obtaining returns of the mortality from the Registrars, who, not unreasonably, decline to undertake extra work without extra pay.

Will you allow me to recall the attention of your readers to a very simple plan of managing this, which appeared in a leading article in your valuable Journal of the 15th December, 1855.

In the case of every death, a Medical certificate of the cause of death is given to the Registrar. When the death is entered in the register, the Medical certificate is valueless, and is thrown into the waste-paper basket. Now, surely it is not too much to ask the Registrars to string these certificates on a file, which may be sent for at stated times by the Officers of Health; that is, if the Registrars object to the trouble of posting them.

It is essential that the Officers of Health should see the original Medical certificate of cause of death; and if there should be anything unsatisfactory in such certificate, or if there should be no certificate, it might be his duty to ascertain that the death did actually take place; and that it did not arise from causes calling for investigation by the Coroner.

The above plan would insure this, with no expense and no trouble. I am, &c. Robert Druitt.

Curzon-street, April 2, 1856.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 4, 1856.

Dr. Peacock, Vice-President, in the Chair.

[Continued from p. 293.]

Mr. Curling showed

FRAGMENTS OF A CALCULUS REMOVED BY LITHOTRITY.

The case was of interest on account of the patient being a lad, aged 10. The lithotrite had been used six times, and about three drachms of an oxalate of lime calculus, in fragments, had come away. Three months had been occupied in the treatment, and the boy was now believed to be cured. On several occasions much irritation had been caused by the impaction of fragments in the urethra. Great benefit had been derived by the exhibition of chloroform on the last three occasions in which the lithotrite had been used. On the whole, Mr. Curling thought the result favourable to the practice of lithotrity in young subjects.

Dr. Graily Hewett showed specimens illustrating the occurrence of

COLLAPSE OF THE LUNGS IN HOOPING-COUGH.

They had been removed from four children who had died in different stages of the disease. All of them showed the occurrence of collapse in portions. The details of the cases at much length were read. The exhibitor held, that collapse of lung was almost invariably found in fatal cases of hooping-cough. He did not wish to assert that it was peculiar to that affection, but admitted that it was met with in conjunction with capillary bronchitis from other causes.

Dr. Ogle exhibited an

ANEURISM OF THE AORTA, OBSTRUCTING THE PULMONARY ARTERY.

The specimen was similar to one brought by Dr. Ogle before the Society in the Session of 1852—53, and showed an aneurism of the size of a bantam's egg, opening by a rounded communication with the aorta, just above one of the aortic valve-flaps, and pressing into the right ventricle. It so occupied the orifice of the pulmonary artery, that but a very slight opening existed for the passage of blood. Its walls were destroyed, to some extent, in the ventricle, but it was filled by firm, fibrinous coagulum, which was bathed by the blood in this cavity. The walls of both the ventricles were thickened, and their cavities dilated. Moreover, an aneurismal pouch existed in the substance of the septum of the ventricles, projecting from the left into the right ventricle. The patient, a man of middle age, had also diseased kidneys, and died comatose, after suffering from dyspnœa and general dropsy. The morbid sounds of the heart were a loud, systolic bruit, heard chiefly at the base, and a double murmur, heard at the base, not traceable up the large thoracic vessels.

Dr. Ogle showed a specimen of

OSSEOUS DEPOSIT IN THE WALLS OF A LARGE VEIN.

The preparation showed a deposit of calcareous matter adherent to the interior of an iliac vein, being about two inches in length and of considerable thickness. It was, when recent, coated over by fibrin which was drying. It was found, microscopically, to contain distinct lacunæ and canaliculi. It was curious owing to its size partly, but chiefly as indicating that these bodies may contain true bone tissue; and, therefore, that the word "phlebolithic" does not in such cases express their true character; another name being requisite for them.

Mr. Hutchinson showed a specimen of

THICK-WALLED CYST IN THE TESTIS.

The testis was that of a man, aged 63, from whom it had been removed by operation. It showed a cyst, the size of a duck's egg, within the tunica albuginea, and having walls at least a quarter of an inch thick, densely fibrous, and in parts bony. The gland itself, closely united to the cyst, lay below it, and was quite healthy. The vas deferens passed down the posterior part of the cyst. The enlargement was known to have existed for upwards of six years, and had, in the first instance, been complicated with hydrocele. Mr. Hutchinson remarked upon the great rarity of the condition exemplified.

Mr. Wood showed a specimen of

ANKYLOSIS OF THE KNEE.

In this specimen there is bony ankylosis of the femoral condyles to the tibial tuberosities, with partial displacement of the internal tuberosity backwards. There is a small aperture through the ankylosis in the position of the intercondyloid notch, and many spiculæ of newly-formed bone and osteophytes around. On the articular surface of the displaced inner tuberosity was a piece of dead bone in the centre of a small abscess with no external communication. The patella was ankylosed by fibrous membrane only. There was much inflammatory deposit in the surrounding soft tissues.

Mr. Wood also showed

PENDULOUS OSSIFIC GROWTHS IN THE ELBOW-JOINT.

These were oval masses of true bone, one about the size of a pea, and the other half as large again, suspended by a pedicle of synovial membrane from the olecranon fossa. On section, they present a cancellated structure, and had their origin, apparently, in the synovial fat of the fossa. They did not interfere with the motion of the joint.

Mr. Wood next brought before the Society specimens of

IMPACTED FRACTURES OF THE THIGH BONE.

The first was from a subject suffering from "malacosteon." The outline of the fracture is very distinct, the lower margin of the neck passing completely across the scanty cancellous tissue of the great trochanter, and resting on the lesser trochanter in the middle of its length. The neck of bone is consequently much shortened, and at right angles to the shaft. The fracture is completely united by bone; but posteriorly, below the great trochanter, is an elongated foramen, leading into the medullary cavity, immediately below the fractured neck, but closed in the recent condition by fibrous membrane. A similar opening passes through the laminar external layers at the base of the great trochanter externally, and communicates with the site of the imbedded cervix. They are most probably gaps left in the site of the fracture unfilled by ossific deposit. Most of the bones in this subject presented fractures in different stages of reparation.

The second was an impacted fracture of the cervix femoris, ununited by bone, with longitudinal fracture through the great trochanter, and upper part of the shaft, with bony union. The fracture of the neck is, posteriorly, clearly outside the insertion of the capsular ligament, close to the inter-trochanteric line; anteriorly, it is at the line of insertion of the capsular ligament. The neck is driven into the longitudinal fracture to the extent of half the diameter of the trochanter major. The union, notwithstanding, seems to have been ligamentous only, since it was movable but very slightly; no bony exudation whatever is seen on the fractured end of the cervix when taken from the body. The posterior half of the greater and the whole of the lesser trochanter, with about two inches of the posterior surface of the shaft, is broken from the rest of the bone by a longitudinal fracture which has united by bone, though not firmly, nor to the whole extent of the fractured surfaces. A copious exudation of bony matter has taken place on the shaft side of the fracture anteriorly. A much smaller exudation is seen posteriorly on the separated portion of the trochanter and shaft. A small portion of the upper border of the great trochanter has been detached, but become united by bone to the detached part of the trochanter. The cervix femoris is placed at right angles to the shaft; round the margin of the articular surface is a pretty copious deposit of bone, forming a distinct rim and overhanging the neck. On the upper part of the globular head itself is a large patch of porcelainous deposit; and at the point of attachment of the ligamentum teres is also an osteophyte. The cervix femoris of the opposite thigh is placed at the normal angle, about 120°, and exhibits no osteophyte, and but a little porcelainous deposit. This arthritic change, then, has probably taken place subsequently to the fracture; and, notwithstanding the want of firm bony union, it has gone to a much greater extent on the detached head of the femur than on the uninjured one. The inflammation set up by the fracture has probably been the exciting cause, but this has not been effective enough to contribute a proper share to the union of the fractured surfaces.

MEDICAL SOCIETY OF LONDON.

Saturday, March 15, 1856.

Dr. Chowne, President, in the Chair.

The President thanked the members for having elected him President of the Society, an office which he said he especially valued on account of the social distinction which it conferred. He then briefly referred to the members who had died during the past year, namely, three honorary members, Mr. Copeland, Mr. Pilcher, and Mr. Chambers; and two ordinary members, Mr. Walsh, and Mr. Harwood.

Votes of thanks were then passed to the various office-bearers of the Society during the past year, including the Registrar, whose diligence and zeal in the discharge of his duties were especially commended.

Dr. Hughes Willshire exhibited a specimen, showing

SACCULAR DILATATION OF THE TRANSVERSE AND DESCENDING PORTION OF THE ARCH OF THE AORTA.

The more saccular portion of the aneurism was half-filled with solid fibrin. It had caused perforation of the trachea, immediately above its bifureation, and also of the œsophagus, both in its anterior and posterior walls. The fourth dorsal vertebra, against which the tumour impinged, had suffered some erosion. Death was sudden. The stomach was found half-filled with blood, and immediately after death about a cupful of fluid blood escaped from the trachea. The positive signs during life had been evidence of pressure on veins of the left side, on the œsophagus and trachea, together with excess of heart-sounds below the left clavicle, and dulness of percussion on the left side generally, and great boring pain over the region

of the fourth dorsal vertebra. There was no second centre in the chest of sound or pulsation, no thrill, no bruit, no bulging, no hæmoptysis, nor œdema of left arm. The patient was a bootmaker, thirty-nine years old. The first symptom observed was dysphagia, occurring nine months before the fatal catastrophe.

Mr. Brodhurst exhibited

A NEW SPINAL SUPPORT.

It consists of a pelvic band; two upright crutches, which are connected by a dorsal band; a shoulder sling, which grasps the shoulder and the superior ribs; webbing bands for the support of the primary and secondary curves; and a plate to make pressure from behind forwards. The pelvic band, crutches, and dorsal band together form a solid frame, which cannot be tilted. The dorsal band is fixed a little above the centre of the curve to be acted on, and the shoulder sling is fitted to the depressed shoulder—that, namely, on the side of the concavity of the curve. The shoulder-sling is connected with a rack and pinion-joint, in the centre of the dorsal band; its centre of action is, consequently, a little above the centre of the curve. And as the dorsal band is movable on the crutches, the centre of motion may be altered as the curve is opened. The convexities of the primary and secondary curves are supported by webbing bands, both curves being acted on separately. The webbing bands are supported by metal rods, the superior being movable on the dorsal band, the lower on the pelvic band. Each of them supports the entire convexity of the curve, and they both extend to two upright rods, which rise from the anterior portion of the pelvic band, and are movable upon it. All these movements are effected by rack and pinion-joints. Thus the shoulder is raised, and the curve is unbent (the convexities of the curves being fixed) by means of the shoulder sling, which in its motion describes the segment of a circle, similar, but opposed, to the arc to be unfolded.

Dr. F. Headland read a paper

ON POISONING BY ACONITE ROOT.

After glancing at the history of the plant, and its use as a poison in ancient times, he referred to a number of statements made by authors in the Middle Ages, which showed that the poisonous properties of the plant were well understood by them. Poisonings by aconite in modern times were usually accidental. A number of cases in which the leaves and shoots had been eaten with fatal effects, were first briefly remarked upon, and then the cases of poisoning by aconite root which had been recorded in this country during the last few years were divided under two heads—(1.) Cases of an over-dose of some preparations given as medicine. This was generally the tincture. (2). Cases in which the root had been eaten by mistake as an article of diet.

1. Four cases of poisoning by the tincture have been recorded during the last five years. Others are said to have happened. Of these four persons, two died from taking one fluid drachm of Fleming's tincture; one died from the effects of twenty-five minims of the tincture of the London Pharmacopœia; a fourth barely escaped from a dose of fifteen minims of the same. Two of these cases were attributable to carelessness in dispensers; one, to ignorance of the power of the preparation. The author made these recommendations with the hope of obviating such accidents for the future: Firstly, to carry out the plan of the Dublin College, requiring druggists to keep all dangerous preparations in square or angular bottles, and the others in round bottles. Secondly, that the tincture of aconite, if used, should be made of one uniform strength (as far as possible). At least three different tinctures are in use in this country. Or, thirdly, that it would be still better to discard this tincture altogether, as an uncertain preparation, substituting for it a solution of aconitina of one fixed strength, containing $\frac{1}{600}$ of a grain in each drop.

2. In nearly all the cases in which aconite root had been eaten as food, the singular error has been made of mistaking it for the root of the common horseradish, and so scraping and eating it with roast beef. The author read accounts of four cases of this fatal error, which have occurred of late years, the last of them being the recent tragedy at Dingwall, in Scotland, when three gentlemen lost their lives. To show that such mistakes could not be committed by careful persons, specimens and drawings of horseradish and aconite root were exhibited and compared. The acid but not pungent taste of the aconite parings, and the pinkish colour which they assume when exposed to the air, were among the points noticed.

The author, having noticed a singular case of poisoned coffee, proceeded to state that there were two ways in which a case of aconite poisoning could be recognised: (1.) By the symptoms, which are very characteristic. (2.) By obtaining some of the poisonous principle, by a chemical process, from the contents of the stomach and matters vomited, and then trying its action upon small animals, or on the tongue, etc. There are no distinctive chemical tests for it, but $\frac{1}{300}$ of a grain of the alkaloid (aconitina) would kill a mouse, and $\frac{1}{1000}$ placed on the tip of the tongue would cause tingling and numbness. With regard to the treatment of such cases of poisoning, Dr. Headland recommended the immediate and free administration of animal charcoal, mixed with water. This to be followed by a zinc emetic, then by brandy and ammonia. The charcoal has the power of retaining and separating the poisonous alkaloid, and if we have rendered help in time, the patient may perhaps be saved.

Dr. Guy said it might appear singular how a substance having so remarkable an effect on the organs of taste should ever be swallowed by mistake; but this was explained by the circumstance, that the effect in question was not immediately developed, some minutes occasionally elapsing before the characteristic sensations were experienced.

Mr. Bishop urged the importance of greater caution being observed in regard to the growth of the aconite plant in juxtaposition with the horseradish.

Dr. Webster suggested that some experiments should be made in the way indicated by the author, and mentioned a case of poisoning by the aconite root that occurred some years ago in Lambeth, to which he called Dr. Headland's attention.

Mr. Canton related a case of poisoning by tincture of aconite which had come under his own observation, and in which the symptoms were similar to those described by the author. The pupils were dilated. The patient, who was suffering from rheumatic inflammation of the eye, was taking a mixture containing five minims of the tincture of aconite, with ten minims of the wine of colchicum; but he inconsiderately took an over-dose, and hence the result. Stimulants were given, and the patient recovered.

Dr. Thudichum recommended the use of the tincture of the spirituous extract of aconite, which, though not of so certain and definite a strength as aconitina, was, he said, preferable to the ordinary tincture of the pharmacopœia, the use of which ought to be discontinued. He had used this agent with very decided results in cases of pneumonia.

Mr. Headland referred to a case which had been mentioned by the late Dr. Golding Bird, in which a large quantity of the alkaloid, aconitina, was taken by a gentleman, but did not prove fatal; and to the experiments of Dr. Garrod, respecting the action of animal charcoal upon vegetable poisons. If, he said, animal charcoal was so valuable an agent, it ought to be within the reach of every Medical man. He had himself made some experiments with reference to the action of aconite. He once took a single drop of a mixture containing the tincture, made from the express juice of the plant, root, and leaves, with an equal quantity of spirits of wine; experiencing no effect from it, he took another dose at bed-time, and went to sleep. His night-bell ringing, he awoke, got out of bed, and went nearly head foremost against the drawers. Suffering from an intolerable vertigo, he took some brandy and water, and resolved never to taste the tincture again.

The author, in replying, said he thought that the aconitina taken by Dr. Golding Bird's patient must have been exceedingly impure; and stated that he had often found the alkaloid as purchased in shops almost inert.

The Society then adjourned.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

February 15, 1855.

Dr. Barclay, V.P., in the Chair.

Dr. Aldis related a case of

ABSCESS IN THE RIGHT HYPOCHONDRIUM,

WITH DISCHARGE OF NUMEROUS CALCULI, AND COMPLICATED WITH ALBUMINARIA, ANASARCA, AND CHRONIC BRONCHITIS.

The patient, aged 66, was first seen January 10, 1856, when the pulse was 96. Tongue yellowish, furred, and moist;

urine scanty; anasarca, and constant discharge of whitish matter from an aperture in the right hypochondrium, through which numerous gall-stones have passed, seventeen of which were preserved and exhibited; the last were passed three months ago. The legs have been swollen four years, and the urine is scanty. Prior to the swelling of the legs an abscess formed in the right hypochondrium, which "broke" a year afterwards, producing a great discharge, followed soon after by the appearance of gall-stones. She suffers also from chronic bronchitis. She suffered six years with pain in the right hypochondrium, and states that at 14 she had an attack of jaundice, which has not recurred. The motions are offensive, and contain dark bile. Is exhausted by want of sleep and diarrhœa. To take M. camph. ʒj., sp. œth. nit. ♏ xv., conf. arom. ʒj.; 4tis horis. Pulv. ipecac. co. grs. v.; o. n. January 22.—Cough troublesome; breathing laborious and forced, accompanied with cooing sounds; pulse very feeble. To take sp. œth. s. c. ʒss., tr. scillæ ♏ vj., sp. œth. nit. ♏ xv., tr. opii. ♏ iv., and wine. January 24.—Patient died. No post-mortem examination. This is the only case of the kind which has fallen under the author's notice, though Mr. Blagden has narrated a similar one, occurring in a lady of the same age. The calculus weighed nearly an ounce and a quarter, and the patient gradually recovered. The present case might have had as favourable a termination, but for the other severe complications.

The Society then adjourned.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW OFFICERS.

Tewkesbury.—At a meeting of the Medical Officers of the Tewkesbury Union, held on the 27th of March, present Messrs. Prior, Martin, Allard, and Dixon, it was unanimously resolved: 1. That this meeting pledges itself to further the movement commenced by Mr. Griffin, for a more equitable adjustment of the remuneration to Poor-Law Medical Officers. 2. That the thanks of this meeting be given to Mr. Griffin, for his exertions in our cause, and that he be requested to call a general meeting of Union Medical Officers at some central point. 3. That Mr. Martin, of Kemerton, be appointed Local Secretary and Treasurer. 4. That a subscription of five shillings per quarter be paid by each of the Medical Officers of this Union, to the Treasurer, to defray the incidental local expenses, and the remainder forwarded to Mr. Griffin. 5. That a copy of the foregoing Resolutions be forwarded to Mr. Griffin, and to the Medical Journals.

Bedford.—At a meeting of the Medical Officers of the Bedford Union, held March 20th, 1856; present, Dr. Barker, Mr. Gregory, Dr. Prior, Mr. Robinson, Mr. Stedman; a letter from Mr. Griffin, on the subject of Union Medical appointments, and other communications, having been read, the following Resolutions were unanimously agreed to:—1. That, while the Medical Officers of the Bedford Union have not the grievances to complain of which exist in other Unions, they nevertheless wish to signify to Mr. Griffin their warm approbation of the efforts he is making to meliorate the condition of Union Medical Officers. 2. That this meeting is of opinion that the system of payment by fixed salaries, as applied to Medical Officers, is objectionable and undesirable. 3. That this meeting recommends for general adoption a modification of the system in use in the Bedford Union, a copy of which is annexed. 4. That they are of opinion that in one point this system is susceptible of improvement; viz., that in all cases, whether on the schedule or otherwise, an increased remuneration should be given, in proportion to the distance from the residence of the Medical Officer. 5. That, provided a proper scale of payment per case, with a fixed minimum, were adopted, in conformity with their suggestion, throughout the country, they do not see any necessity for throwing the payment of the Medical Officers on the Consolidated Fund. 6. That, with a view of carrying out these objects, a contribution of 5s. each be entered into, and deposited with the local secretary, to be augmented as circumstances may dictate. 7. That Dr. Prior be invited to act as local secretary, and to communicate these resolutions to the Medical journals and to Mr. Griffin.—Signed, on behalf of the meeting, C. E. Prior, M.D., Chairman and Local Secretary. The Medical service of the Bedford Union is organized somewhat on the principle of benefit clubs, and on the presumption that the Medical Officers hold clubs in the districts (which is generally the case.) Its main features are the "schedule," one of which is given to each Medical Officer at the commencement of the year, containing the names of all such persons as he is called upon to attend at the specified rates; and the "extra orders" which are given in cases of emergency. The family order (10s.) is available in times of epidemic. Extra orders continue in force three months. By permission of Mr. Wing, Clerk to the Bedford Board of Guardians, we extract from the minutes of the Board the terms of a recent appointment:—"Salary or remuneration calculated according to the following scale, viz.:—For every individual inserted by name in the annual pauper Medical relief list, 3s. 6d. For a man and his wife inserted in the same list, 5s. For a man, his wife, and family under sixteen years of age, inserted in the same list, 8s. For every case of urgent or sudden necessity, not inserted in such list, 5s. For every like case to include a whole family, 10s. For making out and transmitting the weekly Medical return list, £2 2s. per annum; exclusive, of course, of the extra fees given by the standing order of the Poor-Law Commissioners. The Union House is paid for at a fixed salary. The above system has been in use seventeen years.

Rye.—At a meeting of the Medical Officers of the Rye Union, held at the George Hotel, Rye, the following Resolutions were passed:—1. That the thanks of this meeting be tendered to R. Griffin, Esq., of Weymouth, for his exertions on behalf of the Poor-Law Medical Officers. 2. The Medical Officers of this Union form themselves into a local committee for the furtherance of this object. 3. That Mr. R. C. N. Davies be appointed local secretary, and a subscription of 5s. each per quarter, or any further sum that may be necessary, be paid him to defray the necessary expenses. 4. That this meeting consider that the sum of 15s. per case should be paid for ordinary cases of midwifery under 2 miles; £1 per case over; the extra fees for midwifery to remain as they are. 5. That the following list of operations not mentioned in the consolidated order be paid extra, viz., trephining, setting lower jaw, clavicle, pelvis, and ribs, ligature of arteries, amputation of breast, excision of testicle, tapping, ascites and hydrocele, catheterism, lithotomy and lithotrity, operation for cataract and strabismus, operation for artificial anus, &c., reduction of herniæ, excision of upper and lower jaw, and resection of joints. 6. That the following dislocations be paid extra for, viz., dislocation of lower jaw, patella, spine, and clavicle. 7. That the meeting consider the Union Medical Officers should be under the supervision of a Medical Inspector. 8. That all cases occurring in the Union House, that would entitle Medical Officers out of the house to an extra fee, be allowed to the Surgeon holding that appointment. 9. That a copy of these resolutions be forwarded to Mr. Griffin and each of the Medical periodicals. Signed, John Harris, Edw. F. Sankey. R. C. N. Davies, Local Secretary.—Rye, Sussex, March 19, 1856.

Blything.—At a meeting of the Medical Officers of the Blything Union, held on the 27th inst., the following Resolutions were adopted:—Resolved,—1. That the thanks of this meeting be conveyed to Mr. Griffin for his exertions in the cause of Poor-law Medical Reform. 2. That an early meeting of a deputation from each Union be held in London. 3. That the Medical Officers of this Union fully concur in the general principles of Mr. Griffin's propositions, and desire to express their willingness to render him every assistance in their power. 4. That a contribution of 5s. per quarter, be made by each Medical Officer of this Union, and that Mr. S. Garrard be appointed Secretary and Treasurer, and that he be requested to forward a copy of the above Resolutions to Mr. Griffin and the Medical Journals.—Seaman Garrard, Secretary.

Belper.—A meeting of the Medical Officers of the Belper Union took place at the Red Lion, Belper, on Wednesday, March 26, William Cantrell, Esq., of Wirksworth, in the Chair. The following Resolutions were carried unanimously:—1. That this meeting sees great necessity for an examination into, and an equalization of, the salaries of Poor-Law Medical Officers, and recommends that the basis upon which to estimate the remuneration of the Poor-Law Surgeons of England and Wales should be the extent, population, and state of the poor's-rate in the districts. This meeting is decidedly of opinion that any additional emolument should be made by increase of salary, to the exclusion of all extra fees, except those for midwifery. 2. That the best thanks of this

meeting be given to Mr. Griffin for his zeal and attention in the cause of Poor-Law Medical Reform; and, although this meeting cannot coincide with his views, it nevertheless directs, in the event of a public assembly being called by him, the British Medical Association, or Poor-Law Convention, that a representative be sent from this Union at the expense of the Medical Officers, and that Mr. Cantrell be requested to become such representative. This meeting cannot lose sight of the fact, that in the British Medical Association and Poor-Law Convention there exists an amount of power and influence not elsewhere to be found, and which, if combined in aid of this cause, is sure to have its weight with the Legislature. 3. That Dr. Webb be appointed Local Secretary; that he communicate these resolutions to the Medical Journals, and direct Mr. Griffin's attention to them.—(Signed) W. Cantrell, Chairman; William Webb, M.D., Local Secretary.

Williton.—At a meeting of the Medical Officers of the Williton Union, in the county of Somerset, held on Wednesday, March 26, 1856, letters were read from Mr. Hole, of Dunster, and from Mr. Smith, of Porlock, expressing their approbation of Mr. Griffin's proposals for the melioration of the position of Poor-Law Medical Officers; and the following Resolutions were unanimously passed:—1. That a vote of thanks be tendered to R. Griffin, Esq., for his exertions in the cause of Poor-Law Medical Officers. 2. That the Medical Officers of this Union do form themselves into a local Association; and that a subscription of 5s. per quarter be paid by each member, *in advance*. 3. That we are of opinion that no payment—per case—will be satisfactory, unless a distinction be made between *thickly* and *thinly* populated districts. 4. That the rate of payment for midwifery cases should be fixed according to distance, a sovereign being the minimum beyond two miles: furthermore, that abortions and premature labours be considered as midwifery cases. 5. That the Article 177 in the Consolidated Order should embrace all accidents; to be paid for in proportion to their severity. 6. That a copy of these Resolutions be forwarded to Mr. Griffin, and the Medical Journals; and that this meeting pledges itself to promote, to the utmost of its power, the movement commenced by that gentleman. 7. That Mr. W. T. Gaye be requested to act as Honorary Secretary and Treasurer.—(Signed)—William Gaye, R. E. Lutley, John Gray Henry, James Nicholls; W. T. Gaye, *Hon. Secretary*.

Brigg.—At a meeting of the Medical Officers of the Brigg Union, held on Saturday, March 22, 1856, resolved:—1. That the best thanks of this meeting be given to Mr. Griffin for his exertions on behalf of the Union Medical Officers of this kingdom.—2. That this meeting pledges itself to support Mr. Griffin in his endeavours to remove the grievances of Union Medical Officers, and hereby agrees to subscribe five shillings each towards the necessary expenses incurred.—3. That it is desirable, that the present amount of remuneration be increased, the salaries of Union Medical Officers being inadequate to the labour and expenses attending the performance of their arduous duties.—4. That the list of extra charges ought to be enlarged, and the fee in Midwifery cases should be fixed: under two miles, 10s.; beyond two miles, £1.—5. That H. Marston, Esq., be appointed Treasurer and Secretary, and that he be requested to transmit the subscriptions to Mr. Griffin when collected.

Lutterworth.—At a meeting of the Medical Officers of Lutterworth Union, held April 1, 1856, the following Resolutions were passed:—1. That the thanks of this meeting be tendered to R. Griffin, Esq., for his exertions on behalf of the Poor-Law Medical Officers. 2. That the Medical Officers of this Union, while desiring to express their sense of the kind and considerate conduct of their own Board of Guardians, do nevertheless feel it their duty to form themselves into a Local Committee for the furtherance of Mr. Griffin's movement on behalf of Poor-Law Medical Officers generally. 3. That this meeting agrees generally in the plan proposed by Mr. Griffin, but protests against the proposition for including extras in the yearly salaries: the meeting proposes, on the contrary, that the list of cases coming under the demonination of extras be enlarged, and that the remuneration for ordinary cases of midwifery be increased, and the extra fees for midwifery remain as they are. 4. That the Medical Officers of Union Workhouses should be paid the same fees for extra services performed therein as are allowed for District Medical Officers. 5. That it is desirable and just that the present amount of remuneration to Union Medical Officers should be increased, their salaries being wholly inadequate to the labour and expense attending the performance of their arduous duties. 6. That a subscription of 5s. each be entered into to defray all necessary expenses, and that Dr. Bond be requested to act as Local Treasurer. 7. That a copy of these Resolutions be forwarded to Mr. Griffin and to each of the Medical Journals.—Charles Bond, Chairman.

BIOGRAPHICAL SKETCH OF M. ROUX.

(Continued from page 297.)

What most surprised him was the number of eminent men then practising Surgery in London, and in this point of view he was obliged to acknowledge the inferiority of Paris. His attention was greatly excited by all he saw around him, for in the smallest as well as the most important matters the aspect was entirely different and the practice quite new. The classic charpie was here replaced by lint or tow, and prior to great operations, the patient was subjected to no preparatory treatment, and was not kept waiting in the Hospital under pretext of acclimatizing him. After the operation, none of those minute dressings and artistic bandages so dear to the School of Boyer were resorted to. The bandages served only for compression, and simple sticking-plaister usually constituted all the dressing. Union by the first intention was the rule. The patient suffering from ulcers who in Paris would have been condemned to rest, his sores overloaded with charpie and cataplasms, renewed at least daily, here had them strapped only every three or four days, and was permitted to walk about. We pass over the new ideas he gathered at every step on Egyptian ophthalmia, affections of the prostate, syphilitic testis, cancer of the penis, and fungus hæmatodes. Those ligatures of the large arteries, which in Paris were only known by name, he saw practised before his eyes, and already the project was meditated, although he says he can hardly venture to mention it, of tying the subclavian within the scaleni and the innominata. This boldness, far from seducing, alarmed him, and he doubted whether the "too great simplicity" of procedures he witnessed would ever be adopted in France.

Amidst this unexpected scene, seized by turns with admiration and distrust, a generous emulation first took possession of him, and then national pride began somewhat to prevail. What did he take in return to the English, and what weight did he throw into the balance? He showed Brodie and Cooper how to employ the moxa, and he first exhibited Desault's mode of tying naso-pharyngean polypi, and to Hey's amputation of the foot he opposed Chopart's. He was desirous of teaching the English Surgeons Desault's mode of treating fractures, which he regarded as perfect, and was somewhat hurt at the little account they made of it; but was he to be surprised at this, when he found them professing the singular opinion, that intra-capsular fractures of the femur were incapable of bony union? He was no less convinced of the superiority of the French practice in dislocations; and as to hernia, what mattered the works of Lawrence or Cooper, excellent as these were? The Surgeons of the eighteenth century had only left gleanings behind them. The general result at which he arrived was, that English Surgery, side by side with the most brilliant features, exhibited very great imperfections; while the French Surgery was more generally good. The expression was, at least, patriotic, and met with success in Paris: but there were not wanting zealous patriots who declared that Roux had betrayed the interests of France, and were indignant at his unjust predilection for the proud English. They asked, if London had celebrated Surgeons, had not Paris also hers?

There was, in fact, no deficiency of men of renown; but it must be admitted, that they had not produced works proportioned to this. Since the death of Desault the vitality of French Surgery seemed to have gradually diminished. Up to 1814, Boyer had published nothing, and Dubois, with his just and penetrating intellect, was so absorbed by an immense practice, that he contented himself with throwing out ideas, which he was in vain implored to commit to writing. Neither Dupuytren nor Roux had yet fully revealed their powers.

Marjolin was not even attached to an Hospital, and the Surgical literature of France comprised during the first fourteen years of this century little more than the "Nosographie," of Richeraud, the "Clinique" of Pelletan, and the "Campagnes" of Larrey. The science seemed to have fallen again beneath the dogmas of authority, and in both the lectures and *clinique* of Boyer, the worship of tradition almost amounted to the worship of immovability. Within a short period, however, another influence began to show itself. Dupuytren had hardly obtained possession of his chair, when he performed resection of the lower jaw, and, stimulated by an insatiable desire for priority, he gave at once the signal and the example; but, anxious before all things for his own renown, he wished to give, not to receive the impulse, and he was nowise better disposed than Boyer to welcome novelties from abroad. Under these circumstances, Roux's work did not obtain the success it merited; for, although somewhat favourably received by the learned Societies and the Press, nowhere was its scope appreciated, and this the author had now to undertake the development of himself.

He had already, during the first years passed at *la Charité*, felt ill at ease within the narrow circle traced by the orthodoxy of Boyer, and had endeavoured to make a breach in it; and after his return from London, the methodical and pacific practice at the Hospital became suddenly disturbed from its profound quietude by a true eruption of foreign procedures. All wounds were united by the first intention, the flap operation displaced the circular, ligatures were cut close, and ulcers, to the great advantage of the patients, were dressed *à l'Anglaise*. The Hunterian operation was performed in two cases of popliteal aneurism, and with success. Boyer regarded these procedures with uneasiness and distrust, though somewhat re-assured by the reservation, if not timidity, with which Roux undertook his first attempts. Success, however, soon familiarizes us with novelties, and even Boyer himself operated for aneurism by the new mode. He succeeded, and again in another case, and from that time left Roux to its performance uninterfered with; but as if ashamed at what he had done, and retaining an invincible predilection for the procedure he had abandoned, he never spoke of the success he obtained from the other. When Roux, however, desirous not merely of imitating others, extended the operation of resection to carious joints, he found such great obstacles thrown in his way by Boyer, that a rupture had often nearly occurred between father and son-in-law. As Senior Surgeon, having the absolute disposal of the patients, Boyer generally contrived to frustrate the more energetic procedures of the young Surgeon. This passive but obstinate resistance engendered in Roux's mind bitterness and almost insupportable impatience. All was united against him:—the age, position, the high and legitimate reputation of Boyer, the respect and gratitude due from the pupil to the master, the affection for his father-in-law, and the judgment of the crowd, which would inevitably impute to him all that occurred unfavourably. Happy for him if he had been a mere ordinary Surgeon! He would have conscientiously fulfilled his task without noise and renown, but also without struggle or suffering. But he felt that within him which he neither could nor would let perish, and, persisting, he disputed the territory foot by foot, until Boyer, discouraged, at last yielded him the victory. Under Roux's guidance the Clinique at *la Charité* acquired a new life, and not unsuccessfully rivalled that of the *Hôtel-Dieu*.

In 1816 he commenced a course of Surgical Anatomy. This was a branch that had almost to be created, and here the pupil of Bichat, in truth, rose to the height of his master. He divided his subject into general surgical anatomy and regional anatomy, and with the mere anatomical details he mingled higher considerations, and observations of singular sagacity. Unfortunately he never published his lectures, and on the nomination of Beclard (who, comprehending the bearing of this teaching, immediately made it the object of his attention) to the Chair of Anatomy at the Faculty, he abandoned them.

In September, 1819, the fortune of Surgery presented him with a fine opportunity. Dr. Stephenson, an English student, called to bid him farewell. His nasal voice and difficult articulation betrayed a fissure of the palate, which Roux found on examination to consist in a congenital division limited to the velum. Strange to say, Roux had never yet met with a similar case; but, on examination, he found that when the mouth was widely opened the separated edges were involuntarily brought together for an instant. The idea at once struck him, that if the muscles could thus temporarily join the parts, there was nothing to prevent their adaptation by sutures. The operation was performed, and thirteen days afterwards the patient read his own case at the Institute, Staphyloraphy entering into the domain of Surgery. Graefe claimed the priority of performance of this operation; but, although the same idea was present in his mind as to what had to be done, his execution was far more complex, and the results less satisfactory. Graefe made his reclamation with bitterness, and accused Roux of being aware of his procedure, who, much hurt at the imputation, protested eloquently against its veracity. He received ample reparation; for, while travelling in Germany in 1830, Graefe invited him to his table, and declared before numerous guests, that it was his firm conviction that Roux had reached the common aim unaided. He added, that by the simplicity of his procedure, and his successful results, that Surgeon had contributed more than any one to the establishment and spread of the operation. For himself he had only followed his traces at a distance, having performed this operation only from fifteen to twenty times, while his fortunate rival had reached his seventieth case. Finally, he admitted that he had modified his original procedure so as to bring it nearer the French operation. This was a noble avowal, honourable to the one as to the other Surgeon.

Long prior to this, and, indeed, soon after his first performance of this operation, the Faculty of Medicine showed their appreciation of his merits by unanimously choosing him from among six candidates to fill the Chair of External Pathology, left vacant by the resignation of Percy. In spite of the increase of labour imposed upon him by his new office, he continued his clinical lectures as before, and from 1822 became one of the most constant contributors to the *Dictionnaire de Médecine*. In 1828 he was chosen President of the *Academie de Médecine*. Admission to the *Academie des Sciences* was now the only honour wanting to him; and on the death of Percy, in 1825, he again became a candidate. But here, again, he was met by Dupuytren, who, supported by Charles X., carried the election by a large majority. In 1829, on the occasion of another vacancy, he read two memoirs before the Institute, one treating of resection of the elbow, and the other of those large restorations of the face which have now become part of the common domain, but which no one had then attempted with so much boldness, and in such desperate cases. He was placed on the list *ex æquo* with Larrey, his old master at Val de Grace, and the contest continued doubtful to the last. Larrey was elected by five votes; but Roux succeeded Boyer in 1834 without difficulty.

He had now reached the culminating point of his career, having, at the age of 54, received all the honours and all the titles that can attend the most successful career. A member of the Legion of Honour since 1815, he was raised to the rank of Officer in 1831. After the devotion of ten years to the chair of External Pathology, he was promoted to the *Clinique*, and the death of Boyer left him free and absolute master at *La Charité*. His reputation could not be increased, and he acquired the confidence of the public more and more, so that he could hardly get through his practice. One man alone still surpassed him; but, as if fortune were determined to surpass his wishes, and remove all from before him that could cast a shade, Dupuytren died in 1835. It was a saying of the ancients, that we must distrust too constant prosperity, and that these great favours of fortune sometimes conceal a snare. It was the lot of M. Roux to experience the truth of this. The post at the Hôtel-Dieu thus left vacant was offered to him, but he could not decide on its acceptance for several days. All his habits and best recollections were associated with *La Charité*. This hospital had received him during his obscurity, and had rendered him, associated with its name, celebrated throughout Europe. There he met smiling faces, devoted friends, and well-filled benches, friendly echoes seeming to spring from the very walls. Was it, then, prudent, at his age, to quit so fortunate and certain a position, to seek adventures in another Hospital, an unknown land? All these reasons had their weight; but, as the human mind is ever ingenious in finding pretexts for that which it desires, he called to mind, on the other hand, that, right or wrong, the Hôtel-Dieu was deemed the first Hospital of the world, and that to remain at *La Charité* was to be contented with a secondary rank.

(To be continued.)

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in forwarding the Return of Sick for the week ending the 8th instant, states that—

Notwithstanding the extreme severity of the weather during the last week, the health of the Army has scarcely been affected by it, and the number of deaths has been nine fewer than it was during the preceding week.

Only six deaths have occurred in Hospital during the present week—one from fever, three from pneumonia, one from delirium tremens, and one from apoplexy. Two cases of sudden death have occurred out of Hospital, both the result of drunkenness; and in some other cases of men brought into the Hospital in a state of insensibility, recourse was obliged to be had to mechanical means for relieving their stomachs.

There has been a slight increase of sick this week under the heads of fever, chest affections, and ophthalmia; but a remarkable freedom from bowel complaints, and all other classes of serious disease.

Exclusive of the Land Transport Corps and the Army Works Corps, the sick of which have been admitted into the General Return for the first time this week, the admissions to strength in the regular Army in the Crimea have been in the ratio of . . . . . 2·10 per cent.

Deaths to strength . . . . 0·01 ,,

Sick to well . . . . . 4·42 ,,

Including the Land Transport and Army Works Corps, the proportions only amount to—

Admissions . . . . . 2·18 per cent.

Deaths . . . . . 0·02 ,,

Sick . . . . . 4·67 ,,

In the Land Transport Corps there has been a slight improvement in health, and the mortality has decreased one-third; but still it is one-third more than that of the whole Army in the Crimea.

The troops at Kertch, and the Cavalry Division in the Bosphorus, continue to enjoy good health, and no casualty had occurred in either during the week ending March 1st, 1856, the latest date up to which returns have been received.

Taking the whole British force, exclusive of the Turkish Contingent, and assuming the strength to be 70,409, the whole amount of sick, both in general and regimental Hospitals, amounts only to 3747, or 5·32 per cent., and the deaths during the week noted have been 19, or 0·02 per cent.; and this statement embraces the whole sick of the British Army in Turkey.

DR. LETHEBY'S REPORT ON THE HEALTH OF THE CITY.

Gentlemen,—I have the honour to place before you my quarterly report of the sanitary condition of the city.

Since the 25th of December last your Inspectors have visited 2143 of the houses inhabited by the poor, and they have furnished me with returns respecting the water supply, drainage, cleanliness, ventilation, etc. A large amount of improvement has, therefore, been effected in all these particulars.

I append, as usual, the mortality returns of the City of London for the last three months, and, in directing your attention to them, I have the satisfaction to state that the health of the citizens, as indicated by those returns, is remarkably good. The total number of deaths during the quarter is 737. Of these, 245 occurred among infants under 5 years of age, and 105 had passed the allotted time of threescore years and ten. The following are the most important causes of death:—Consumption and mesenteric disease, 87; hydroecphalus and convulsions of infancy, 58; measles and hooping-cough, 48; typhus fever, 44; scarlet fever, 24; and small-pox, 10.

On comparing the mortality of the quarter with that of the corresponding period during the last seven years, I find that the number of deaths is considerably below the average; for instance, during the winter quarter of last year the number of deaths was 929, the average being 854. In the present quarter, however, the number is only 737—a reduction of 21 per cent. below the former, and of 14 per cent. below the latter. According to the Registrar-General's returns for the 10 years (1843 to 1852), it appears that the average mortality of all the towns of England, during the months of January, February, and March, is 69 per 10,000 of the inhabitants; and that the mortality in the country districts during the same period is 56 per 10,000. Now, the mortality of the citizens of London during the quarter has been only 56·7 per 10,000. So that the health of the City of London has not only been 14 per cent. better than that of the town districts of England, but it has actually approached within a fraction the health of all the rural districts.

Among the mortality returns for the quarter are 44 cases of typhus fever; the average number during the year is 141. Most of these cases occur at the London Fever Hospital at Islington, where the patients are sent as soon as the disease has become fully manifested. On inquiry, I find that the mode of conveyance is always by the public cabs. I think it my duty, therefore, to direct your attention to this fact, and to say, that there is considerable danger in it, both to the public and to the patient. Typhus fever is, as you all know, a most infectious and virulent disease; and, when you consider that the number of deaths annually recorded is but a small proportion of the number annually affected with the disease; and, therefore, of those who are so conveyed to the Hospital, it must be manifest that there is considerable danger in such an employment of the public cabs. Within the last week, I have been informed that five persons in one family have been stricken with fever, in consequence of one of them having imprudently visited a tainted locality: and yet here are cases, in which we are doing our best to expose any individual of the community to the influence of a tainted locality, at any moment of the day. I have no hesitation in saying, that the cabs which have been so employed are sufficiently infected to become a powerful means of spreading the disease; and I might apply the very same remarks to the fact of the public vehicles being also used for the conveyance of persons affected with small-pox.

To the poor patient the danger which arises from this mode of conveyance is equally great, for the vertical position, which he is obliged to assume, and the uneasy joltings to which he is subjected, are both likely so to depress his vital powers, as to give the mastery to the disease. At the time of cholera, when the cabs are used in this manner, it is not at all an uncommon circumstance to find the patient dead in the arms of the attendant who is supporting him. The remedy for this mischief is simple and inexpensive. If the three City Unions would each provide an ambulance-car, for the conveyance of the sick in an horizontal position, it would cost no more to hire a horse for it when it is wanted, than it does at the present time for a public cab.

I have brought these facts before your notice in order that they may be known to the Guardians of the City poor, whom I have always found willing and anxious to benefit the condition of their fellow-citizens.

I have the honour, gentlemen,

To remain your obedient servant,

Henry Letheby, M.B., &c.

Medical Officer of Health for the City of London.

Guildhall, April 1, 1856.

DEPUTATIONS TO MINISTERS ON MEDICAL REFORM, ETC.

A Deputation from the Universities of Edinburgh and Glasgow had an interview on Tuesday with the Right Hon. W. Cowper, M.P., at the Office of the General Board of Health, Whitehall. The Deputation consisted of Professor Syme and Professor Balfour, of Edinburgh, and Professor Lawrie, of Glasgow.

Dr. Paris, President of the Royal College of Physicians, and Dr. Hawkins, Registrar of the College of Physicians, also had an interview with the Right Honourable Baronet on the subject of the Medical Bill.

A Deputation from University College, London, respecting Mr. Headlam's Medical Bill, had an interview with Sir George Grey on Monday, at the Home Office. The deputation consisted of Messrs. Grote and Frederic John Wood, Members of Council; Professor Ellis, Dean of the Faculty of Medicine; Professor Sharpey, and Mr. Atkinson, Secretary.

A Deputation of Medical men connected with University College, London, had an interview on Monday with Mr.

Cowper, at the office of the General Board of Health. The deputation consisted of Mr. Erichsen, Dr. Hare, Mr. W. E. Stewart, Dr. Quain, Mr. Baker, etc.

A Deputation, consisting of Dr. Leet, of Dublin, Mr. Grogan, M.P., Mr. Oliveira, M.P., Mr. Adam Black, M.P., etc., had an interview with Sir George Grey on Tuesday.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS.—Tuesday, April 1.

Mr. Masters presented several Petitions in favour of Medical reform.

Dr. Michell presented Petitions from various places against the Vaccination Bill, and also a Petition from Dorking, "signed by eighteen persons suffering from small-pox, six of whom have since died, and the remainder are now suffering from various diseases arising from Vaccination"! also against the Vaccination Bill.

Mr. T. Duncombe presented several Petitions against the Vaccination Bill.

Mr. Egerton presented Petitions from Congleton, with a similar prayer.

THE VACCINATION BILL.

Mr. Cowper moved the second reading of the Vaccination Bill. It was the opinion of all eminent Medical men that Vaccination, when properly performed, was a guarantee, generally speaking, against small-pox. The idea that Vaccination was injurious was scouted by all men of eminence in the Medical Profession. The very first year after the introduction of Vaccination into this country, deaths by small-pox were reduced from 16,000 to 6338, and the deaths by small-pox were now annually between 5000 and 6000. Still those deaths were more numerous than in continental countries, in which the system of vaccination was more completely carried into effect. Under this Bill inspectors would be appointed to make inquiries as to whether vaccination had been administered to the children born in this country. A list of the children who had not been vaccinated would be sent by the inspectors to the Boards of Guardians, who would give notice to the parents to have their children vaccinated. Many parents were prejudiced against vaccination. That was owing to its having been sometimes performed by incompetent practitioners. This Bill would compel all vaccinators to be furnished with a proper licence to perform vaccination. It would also increase the vaccination fee from 1s. 6d. to 2s. 6d.

Mr. Henley was not competent to pronounce upon the question, whether or not vaccination was a good thing; but he knew this, that many of the people in his district had complained for the last two years that eruptions had broken out upon their children after they had been vaccinated. It was probable that those eruptions were owing to the incompetence of the vaccinators; but how could it be expected that skilful men would work for a paltry fee of 1s. 6d.?

Dr. Michell had considered this subject for the last forty years, and he had arrived at the conclusion that vaccination propagated instead of diminishing small-pox. It was a fact that small-pox was more prevalent in countries in which Vaccination was compulsory, than in those in which it was voluntary. The people of England would not tolerate such a measure as that now proposed. He believed that the Bill was nothing but a scheme to keep up the Medical Board of Health. Dr. Gregory, who was one of the first authorities upon the question of the small-pox, and who for fifty years has had the superintendence of a Small-pox Hospital, doubted the usefulness of vaccination. It very often produced death. Some of the most eminent French surgeons had stated that diseases had been increased four or five fold by vaccination. The hon. Member then read as the Registrar-General's reports recorded cases of death as the result of Vaccination; also petitions, signed by different persons, against the Bill before the House. The Bill of 1853 had failed, and this Bill would fail also. The people would never submit to the compulsory powers of this Bill; it would raise up a Wat Tyler. (Laughter.) The hon. member referred to the experience of Medical men abroad on the subject, but was frequently interrupted by marks of impatience, and after again denouncing the compulsory provisions of the Bill, which, in two cases out of three, he said, might lead to what would really be legal murder, he concluded by urging on the Right Hon. gentleman not to press the Bill further.

Mr. Brady, while agreeing altogether with the principles of the Bill, expressed his regret that it had not been taken up by, and was not intended to be carried out under the control of, the Board of Health.

Mr. Barrow objected to the bureaucratic character of the Bill, and also to its compulsory clauses, and he was convinced that the Boards of Guardians and the people of this country would never submit to that compulsion.

Mr. Miall could not allow the Bill to be read a second time without entering his protest against it. He objected to the compulsory nature of the measure, by which the Government were impeding the cause which they professed to aid.

The Bill was then read a second time. To be committed on Friday.

Wednesday, April 2.

Several petitions were presented in favour of and against the Medical Profession Bill; and also in favour of and against the Factories Bill.

MEDICAL PROFESSION BILL.

Mr. Headlam presented a great number of petitions signed by Medical Practitioners, in favour of this Bill.

On the motion that the House should go into committee on the Bill,

Lord R. Grosvenor rose to call the attention of the House to the fact, that there were something like a hundred amendments on the paper with regard to this Bill. (Hear, hear.) If those amendments had been given notice of a week or even a few days before the House was asked to go into committee on the Bill, or, if they were merely verbal amendments, he should not have felt that much objection could be offered. But they were of a serious nature, and went to alter the whole principle of the Bill. (Hear, hear.) How was it possible for hon. members to look carefully through those hundred enactments and compare them with the Bill, so as to arrive at a clear understanding of their bearings and objects, without further time than had been allowed them? It was not his desire to raise any objection to the principle of the Bill, nor did he intend on that occasion to make any motion for its postponement. He wished, however, to appeal to the hon. and learned member not to press the Bill at the present time, but to confer outside the House with the various hon. gentlemen interested in the measure, so that they should be relieved from the endless task of discussing the numerous amendments in committee. There was another very important Bill on that day's paper, the Factories Bill, and he was sure they would best consult the interests of their constituents by passing from the present Bill to the one he had just named, and not attempt to force a discussion now, when it was impossible for hon. members to bring to it a clear apprehension of the bearings of the numerous amendments proposed.

Mr. Barrow concurred in the suggestion of the noble Lord, and for precisely the same reasons. He was favourable to the principles of the Bill, but some of the proposed amendments would go to overthrow that principle entirely. He trusted the hon. and learned gentleman would consent to postpone the committal of the Bill.

Mr. Headlam had no personal interest to consult in pressing forward the bill, but felt he must decline to comply with the suggestion of the noble Lord. He thought the House was then as competent to deal with the question as on any future occasion; and he could say that 19 out of 20 of the amendments depended upon one or two others that involved the great principle of the measure.

Mr. Walter considered that a provision to prohibit any person from prescribing or administering medicines without being duly registered was a matter far too important to be introduced as an amendment.

Dr. Michell considered that the effect of the Bill would be to throw the whole of the profession open to druggists and chemists.

Sir G. Grey explained that the amendment of the Government (proposing that the Council should be nominated by Her Majesty, with the advice of the Privy Council) was only put on the paper on the preceding day, because the President of the Board of Health had waited to ascertain the nature of a communication only then made to him by the representatives

of the Medical Profession of England, Ireland, and Scotland. The general wish of those gentlemen was that the Bill should be proceeded with in committee, but with a view to the introduction of very important amendments, because they were unanimous in objecting to the present constitution of the Council. It was desired that a Bill should be passed to provide for the constitution of the Medical Council, and the establishment of an adequate test to ascertain the qualifications of gentlemen going into the Medical Profession, and also for the purposes of registration. He was inclined to think that the House should go into committee, because he believed that many members of the House were fully competent to discuss the question at that moment.

Mr. Barrow suggested that the public out of doors should have an opportunity of instructing their representatives in reference to the Bill.

Mr. Walpole called attention to the important alteration which the Government proposed to make in the constitution of the council. Individually he should be prepared to support the amendment announced by the Government; but he could not agree with the Secretary of State, that the House had sufficient notice of the alterations going to take place in this Bill. He suggested, that with the view of having an effective medical reform, they should refer either the Bill or the subject to a select committee. He proposed, as an amendment, that they should not go into committee on the Bill until next Wednesday.

Mr. Drummond suggested that the public had no means of knowing the provisions of the Bill, and trusted the amendment for postponement would be carried.

Viscount Ebrington had lately an interview with an influential deputation of Medical gentlemen, who appeared to be perfectly in ignorance of the amendment which the House was called upon to adopt. He supported the proposition to send the measure to a select committee.

Mr. Crawford objected to the proposal to postpone the measure, simply because a number of amendments had been put on the paper. If that principle were recognised, any member or members who wished to obstruct the progress of a measure, could affect their object by placing a number of amendments on the paper for consideration on going into committee.

Mr. Henley thought the reasons for postponement were conclusive. The objects of the Bill were of vast importance, and full time ought to be allowed for considering the amendments.

Mr. Headlam said, the facts respecting the Bill were these. It was introduced last session and extensively circulated among the Medical bodies and the members of the Profession; and these, severally, forwarded reports respecting it to the Home Office. From those reports it appeared that almost entire unanimity prevailed in favour of the broad principles of the measure, although there existed differences of opinion respecting particular clauses; and those differences of opinion had, he apprehended, been given undue importance to, and strongly pressed upon the Government by deputations from the Medical corporations. He felt that a postponement of the Bill now, would be almost equivalent to its defeat—(hear, hear)—and he, therefore, did not think he would be doing his duty in agreeing to the amendment. It was for the House to decide. He would divide on the question.

Lord Elcho did not understand how the postponement of the Bill could lead to its abandonment, and the feeling of the House was certainly in favour of postponement. As the Bill then stood, he could but think that it would act most unfairly towards the Universities, by handing over the Medical graduates of those Institutions to the sole authority and control of the Medical Corporations. In the event of this Bill being now postponed, he should ask leave to introduce a Bill embodying the views of the Universities on the subject, so that the House would be enabled to enter on its consideration with the whole question before it.

Mr. Brady defended the amendments he had given notice of, as being quite consistent with the principle of the Bill, and vindicated the Medical Profession from the charge of hostility to Medical Reform.

Mr. Black was satisfied that the best course that could be pursued would be to refer the Bill to a Select Committee, and in this he knew he expressed the views of the several Medical and Surgical Colleges of Edinburgh, and the Professors of the Universities.

Mr. Barrow said, that not only was no sufficient notice given to hon. members of the amendments proposed, but the public also, who had approved of the Bill, would be taken by surprise, and find their opinions disregarded, if the Committee now proceeded with the measure. The principle of the Bill was that of a governing council representing the Profession; but the Government amendments proposed to set aside representation, and substitute for it a council of mere nominees.

Sir G. Grey denied the unanimity of the Profession in favour of the Bill in its present form. He had been waited upon by deputations from the College of Surgeons and Society of Apothecaries of England, the College of Physicians in England, the College of Physicians in Edinburgh, the College of Surgeons in Edinburgh, the representatives of the Edinburgh and Glasgow Universities, the College of London, and the graduates of the Dublin colleges; and he was not aware that any one of those gentlemen had advocated the composition of the council as proposed by the Bill as it then stood. The question, however, now, was not with respect to referring it to a select committee, but whether they should postpone the consideration of it in general committee, or proceed at once with it. He thought the general, if not unanimous, opinion of the House was, that it should be postponed; under these circumstances the hon. and learned member (Mr. Headlam) would, in his opinion, be taking a most unwise course in persisting in now pressing it on. (Hear, hear.)

After a few remarks from Colonel Dunne in favour of postponement,

Mr. T. Duncombe said, if it were proposed to refer the Bill to a select committee he should vote for that proposal in the hope of getting rid of the measure altogether—(a laugh)—which he thought would be the certain result of such a proceeding. Much had been said as to the concurrence of the Medical Profession and the different Medical bodies in favour of this measure, but not one word had been uttered about the opinions and wishes of the public on this matter; and the public certainly had the largest share of interest in it, and deserved the first attention. The public, he had every reason to know, were decidedly and resolutely opposed to the Bill, and to every other measure of the same sort which proposed the erection of a Medical oligarchy. (Hear, hear.) Why should the Legislature interfere at all in the matter? The public said, "Have we not a right to be doctored in our own way?" "No," replies the honourable and learned gentleman, "you must submit to be doctored as we think fit." (Laughter.) There was another of these obnoxious bills before the House—the Vaccination Bill, a bill in its compulsory character most repugnant to the feelings and wishes of the people of this country. With respect to the Bill then under discussion, he wished to see it defeated altogether.

Sir J. Pakington was of opinion that if this Bill was to be thrown out, it ought to be on its own merits, and not by any side-wind. (Hear, hear.) Should it be now postponed, the honourable and learned member might most justly decline any further charge of it; and it would then become the duty of the Government to take it up, as a measure of great importance to particular classes, and to the general community. He felt that the proposal of postponing the Bill involved some harshness towards the honourable and learned gentleman (Mr. Headlam). (Hear, hear.)

The House then divided—

For Amendment, 116;—Against, 81:—Majority, 35.

Mr. Headlam, without meaning to make any charge, would, nevertheless, state as a simple matter of fact, that it was clear the Government had thrown him over. (Loud cries of "hear, hear.") The important point was as to the composition of the Council under the Bill. At the last hour, the Government had given notice of their amendment on that point; the amendment was made a ground for postponement, and the Government turned round and voted against him. Under these circumstances he had no other course to take but to abandon the charge of that Bill, which he thought it was the duty of the Government to take up and proceed with.

Sir G. Grey, in defence of the conduct of the Government, entered into a history of the measures proposed for the reform of the Medical Profession. With respect to the present Bill, it was not the Government which had urged the hon. and learned member to take it up; but, on the contrary, it was pressed on the Government by that gentleman. They, however, declined to take charge of it, deeming that it could

not be in better hands than those of the hon. and learned member; and he did not think, therefore, that he had any right to reproach the Government on the subject. If they had gone into Committee now, it would only have led to a waste of time. He (Sir G. Grey) declined to take charge of the Bill, nor was it the intention of the Government to introduce any other on the subject. If the hon. and learned gentleman chose to go on with it, he would feel it his duty to move such amendments as he might consider necessary.

Sir J. Pakington believed they were now nearer a settlement of the subject than they had been at any time before; and he hoped that before the expiration of a week his hon. and learned friend would have made up his mind to refer the Bill to a select committee, through the labours of which he had no doubt they would attain the great object aimed at, namely, the establishment of a complete registry of duly qualified and authenticated Practitioners.

Mr. Brady was of opinion that the onus of duty lay upon the Government to carry into effect a proper system of Medical reform, and he also felt strongly that the Government had acted harshly towards his honourable and learned friend, in abandoning him at the last moment. He hoped, however, that that gentleman would not persist in his intention to surrender charge of the Bill, which, with some alterations, he was sure he would have the support of the House in carrying through.

Mr. Cowper thought rather unfair measure had been dealt out to the Government in this discussion, for they had been told that they should take the opinion of the Profession on the Bill, and yet when they listened to the views and wishes of the Medical corporate bodies respecting an important part of it, they were attacked for doing so.

Sir J. Pakington thought the strongest illustration that could be given of the difficulty of the subject was afforded by the right honourable gentleman the Secretary of State for the Home Department, who had spoken in favour of going into Committee, and had afterwards supported the amendment.

Sir G. Grey intimated that he had given his reasons for the course he had adopted.

Sir J. Pakington suggested that the honourable gentleman who had charge of the Bill should not abandon it, but accept the proposition for adjournment, and consider, in the meantime, whether it would be more advisable to have a commission, or a select committee.

Lord H. Vane objected to the course taken by the right honourable gentleman the Home Secretary, because he believed that a strong opinion prevailed through the country with respect to the necessity for such a measure.

Viscount Ebrington was far from approving the system of nomineeship to the Council proposed by the Government; neither did he approve of the purely representative system proposed by the Bill for their adoption; but he conceived that it did not follow that they should adopt exclusively either of the propositions.

Mr. Grogan thought it must be satisfactory to the honourable gentleman who introduced the Bill, that its leading principles had met with general concurrence and support.

Lord Elcho announced that, on the following day, he should ask for permission to introduce a Bill for the amendment of the law relating to the Medical Profession. When his Bill was introduced, both measures could be referred to a select committee.

It was finally arranged that the Bill before the House should be taken into consideration next Wednesday.

MEDICAL NEWS.

The Royal Medical Benevolent College.—The fourth Annual Festival of this rising Institution was celebrated on Wednesday evening by a grand banquet at the Freemasons' Tavern, under the presidency of the Right Hon. the Lord Mayor. It may be remembered that the new building, agreeably and salubriously situate on an eminence about a mile from Epsom, was opened last summer by Prince Albert, in presence of a distinguished company, and it may be also as well to remind our readers that the "Royal Medical Benevolent College," which enjoys the patronage of the Queen, and is styled "Royal" by Her Majesty's express desire, was instituted for the maintenance and education of the orphan children of deceased Medical men, and the reception of a certain number of Medical men themselves. Were these benevolent designs insufficient to commend the asylum to the patronage of the Profession and of the public—for the interests of both are inseparable—it would only be necessary to point to the eminent and highly respectable names that strengthen the list of subscribers, independently of those that appeared in yesterday's list of stewards. The Lord Mayor was supported by the treasurer, Mr. Propert, Mr. Alderman and Sheriff Kennedy, Dr. Locock, Dr. Sutherland, Dr. Webster, Mr. Lloyd Davies, M.P., Sir C. Decimus Crosley (ex-Sheriff of London and Middlesex), and other gentlemen. To the usual loyal toasts ample justice was done, and that of "The Army and Navy" was not drunk with the less enthusiasm because the invaluable services of our gallant warriors are now terminated by the blessed advent of Peace. The Lord Mayor proposed the toast of the evening in a neat and pithy speech—we might add, most practically eloquent, if it be tested by the result in pounds, shillings, and pence, for we have the pleasure to announce that the aggregate amount of the subscriptions and proceeds of the Chapel Fund was no less than 4000*l.*—one of the most munificent "sums total," perhaps, ever recorded in the annals of charitable dinners. It appears that the school of the college (opened last October) contains 150 boys, of whom 125 are "exhibitioners," paying a certain sum, and 25 foundation scholars, maintained entirely at the cost of the Charity. The number of elderly pensioners (decayed Medical men) at present maintained in the College, is 12, and 6 more are to be elected next month, besides 6 additional foundation-scholars. In a word, the Institution—thanks to the energy and unremitting assiduity of Mr. Propert, the Treasurer—is fairly launched, and the breezes of popular patronage already assist its progress, with a force that is no less constant than impetuous. Reverting to the dinner, it may be stated that all the arrangements of Messrs. Elkington and Co. gave great satisfaction, and were emphatically approved by the Lord Mayor and the Committee. The vocalists present included Mr. Farquharson Smith, Mr. Montem Smith, and Miss Stabbach, and the selection of music was very superior. Mr. Toole officiated as toastmaster. The number of persons present was about 240.

Apothecaries' Hall.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, March 27, 1856:—

Aldersey, William Hugh, Puckeridge, Herts.
Brodribb, Uriah Perrin, Warminster.
Clunie, William Harris, Camberwell.
Inglis, Cornelius, London.
Juler, Henry Cundell, Isleham, Cambridgeshire.
Lansdown, Francis Poole, Bristol.
Plaskett, Joshua, Louth, Lincolnshire.
Skinner, Sylvester Rutherford, Headcorn, Kent.
Sykes, Edward Croft, Nottingham.
Way, Frederick Walter, Portsmouth.

DEATHS.

Battley.—March 4, at Reigate, after a life zealously devoted to Pharmacy, Richard Battley, aged 86. Mr. Battley was the second son of John and Ruth Battley, and the grandson of Mr. Battley, of Battley, in Yorkshire. He was born about the year 1770, at Wakefield, and educated at the grammar-school of that place, and, subsequently, for the Medical Profession, by Mr. Mitchell, who had a large practice in the neighbourhood. At the expiration of his pupilage he went to Newcastle-upon-Tyne, and entered into an engagement to attend the collieries, which afforded him a large field of Medical and Surgical practice. After remaining a few years at Newcastle, he resolved to increase his

knowledge and experience by studying in the London Hospitals and Medical schools. He came to London, and placed himself under the instruction of Cline and Cooper, and other celebrated teachers, at the united Medical schools of St. Thomas's and Guy's Hospitals. That he was distinguished as a pupil by his industry and intelligence may be inferred from a circumstance which he sometimes mentioned, that the cancer cases (of St. Thomas's Hospital,) were placed by the Surgeons under his especial charge. The friendships which he formed at this period of his life, with many of his teachers and fellow-students, were warmly cherished, and only terminated by death. It was here that he became acquainted with John Cunningham Saunders, the Demonstrator of Anatomy at Guy's Hospital, whom he subsequently assisted to found the London Infirmary for curing Diseases of the Eye. After leaving the Hospitals, Mr. Battley entered the service of the Navy as an Assistant-Surgeon, and was present at several actions under Sir Sydney Smith. He did not, however, long continue at sea, but, returning to London, took a house in St. Paul's-churchyard, when he succeeded to the business of Mr Brown, an Apothecary. He subsequently entered into partnership with Mr. Churchyard, a Chemist of Whitechapel, whose daughter he married. This business engagement, however, did not succeed, and Mr. Battley lost what he had gained in St. Paul's Churchyard. Accordingly, about 1812, he commenced business alone, as a Pharmaceutical Chemist in Fore-street. Eight years previously to this, the London Eye Infirmary was founded by Saunders, Mr. Battley supplying the necessary medicines and a dispenser at his own cost, and performing himself the duties of Secretary; and the early success of the Institution was greatly promoted by his zealous devotion to its interests. This gratuitous service, his high reputation for integrity and ability, and the excellence and purity of his Materia Medica medicines, procured him an extensive connexion, and his business as a Pharmaceutical Chemist was successfully established. He now began to carry out the favourite object of the last forty years of his life, the improvement of Pharmacy. There was no Pharmaceutical Society in those days, and few private individuals were willing to incur obloquy by openly denouncing the frauds and adulterations in Pharmacy which custom almost seemed to sanction. However, there were a few that preferred the better part; Mr. Battley took his part with these, and was rewarded by the unlimited confidence which the Profession at all times placed in the purity and excellence of his medicines. His long experience in Pharmacy, added to a clear intelligence and keen observation, enabled him to introduce some decided improvements in Pharmaceutical operations. He maintained that cold distilled water was, in many cases, a preferable solvent to hot water, and that a small quantity of this menstruum will often extract the medicinal properties, without taking up the inert soluble matters, by which the quantity of the product is increased without addition, and often with detriment, to its value. On these principles he formed the inspissated cold infusions which he termed liquors, of which the most celebrated are the liquor opii and the liquor cinchonæ. He published several analyses of yellow bark, sarsaparilla, etc., in which he described his mode of making the liquor cinchonæ and other liquors, by infusing the bark in twice its weight of cold distilled water, evaporating the infusion to S. G. 1200, and adding rectified spirit till the S. G. fell to 1100. This, with a few other details, was the usual mode of preparing the liquors, though some of them, as the liquor opii, required further treatment for the removal of some of the constituents. Upwards of two thousand pupils, who largely benefited by Mr. Battley's instructions and the opportunities afforded them, will gratefully remember the excellent Museum of Materia Medica and the operations of Pharmacy which were for many years gratuitously exhibited to the pupils of all the Medical Schools, both at his own house in Fore-street, and at the Saunderian Institution, contiguous to the Ophthalmic Hospital, Moorfields, at a time when a good Museum of Materia Medica was wanting in many of the London Schools. While he thus taught the student to make himself practically acquainted with genuine medicines, he took many opportunities of inviting the attention of the older members of the Profession to the same subject; and at the College of Physicians, at St. Bartholomew's Hospital, and at the Saunderian Institution, exhibited specimens such as probably no single individual had ever before collected. Mr. Battley was highly esteemed by more than one President of the College of Physicians. The late Dr. John Latham was his kind friend and supporter, and Sir Henry Halford, in 1834, testified, that "He had been so successful in his preparations of the various articles of the Pharmacopœia, and particularly of those of the vegetables used in physic, that he was anxious to facilitate his introduction to the Professors of the several Schools of Medicine in the country, by bearing testimony to his merit," adding, that "he offered this testimony with the more confidence, as the several Censors of the College of Physicians for many years past had always declared themselves highly satisfied with Mr. Battley's preparations." A still earlier and more intimate friendship existed with the late Dr. Babington, and with Dr. Farre, an uninterrupted friendship of half a century, commencing in the foundation of the London Eye Infirmary, and cemented by their mutual exertions in its behalf. Mr. Battley justly considered his liquors a valuable addition to pharmacy, and he had the satisfaction of seeing not only several of them, especially the liquor opii, liquor cinchonæ, liquor sennæ, largely used by the Profession, but one of them at least, the liquor cinchonæ, adopted in the London Pharmacopœia under the name of infusum cinchonæ spissatum, and his mode of preparation adopted for the extract of cinchonæ, colocynth, and gentian, the former two of which being prepared with hot water were previously very faulty. It was not mere profit that induced Mr. Battley, even when his strength began to fail, still to continue personally to superintend the formation of his preparations. He could not bear the idea that any of the care necessary for their preparation might have been wanting. This anxiety made him linger over his narcotic extracts during their preparation, till intense headache and a failing pulse compelled him to retire. The yearly repetition of this task more than once nearly terminated his life, and doubtless contributed to shorten it. Mr. Battley married as his second wife one of the daughters of William Dalrymple, Esq., Surgeon, of Norwich, by whom he had two daughters. Domestic in his feelings, and happy in his home, Mr. Battley prepared, towards the close of his life, to retire from his large and successful business. For this purpose he took as his partner Mr. Watts, to whose hands his business was transferred. Warm in temper and sometimes hasty in speech, Mr. Battley had a generous and feeling heart. He was sincere and constant in his attachments, and kind and considerate to those whom he willingly assisted. He leaves many friends who will gratefully remember him, and he ceases from his labours esteemed, valued, and regretted.

BOYD.—March 25, at Marlborough-crescent, Newcastle, William Boyd, Esq., Surgeon, aged 36. M.R.C.S.E. 1841.

BUDD.—November 12, 1855, at Heidelberg, Melbourne, Henry Budd, Esq., aged 36, Surgeon, M.R.C.S.E. 1842.

GARDINER.—Dec. 15, 1855, at Hobart Town, in his 24th year, Mr. George Henry Gardiner, Medical Student, King's College, London.

HAWKINS.—Recently, at Faversham, Henry Hawkins, Esq., M.D., aged 64.

ROBERTS.—March 5, aged 81, Richard Worthington Roberts, Esq., late Surgeon-General in the Artillery.

ROTHMAN.—March 28, at St. John's Wood, Richard Wellesley Rothman, Esq., Senior Fellow of Trinity College, Cambridge, and Registrar of the University of London.

SKINNER.—March 26, at Bath, George Robert Skinner, Esq., Assistant-Surgeon H.E.I.C.S., Bengal, in the 31st year of his age.

APPOINTMENT.

AT a Special General Meeting of the Governors of the Torbay Infirmary and Dispensary, held at the Infirmary on Wednesday week, Dr. Balman was elected to the office of Honorary Physician, in the room of Dr. Battersby, resigned. The latter gentleman was unanimously appointed Honorary Consulting Physician to the Institution.

The British Government has applied to the United States Government for permission to bestow reward on Dr. Kant, and the United States Arctic Navigators. [Is this a sop to America, or has the British Government no objects at home on which to bestow rewards—*e. g.*—the Surgeons of the War?—Ed.]

City of London Hospital for Diseases of the Chest.—The Eighth Anniversary Festival of the City of London Hospital for Diseases of the Chest, took place at the London Tavern on Wednesday last. A large and influential company sat down to dinner: and the interest felt in this excellent Hospital was well shown by the amount announced at the close of the evening. The Festival was conducted under the Presidency of Sir John Villiers Shelley, Bart., M.P., who was supported by H. E. Gurney, Esq., the Treasurer; J. G. Frith, Esq.; Thomas Luce, Esq., M.P.; Henry Tucker, Esq.; A. Johnson, Esq.; and Colonel Elsey. Among the members of the Profession present were Dr. Peacock, Dr. Risdon Bennett, Dr. Andrew Clark, Dr. Gibbon, Mr. John Adams, Mr. Gay, and Mr. Hutchinson. The musical arrangements were superintended by Mr. Genge; and as Miss Dolby, Miss Poole, and Mr. Lockey, took part in it, it is needless to state that the performance was most excellent. At the conclusion of the festivities, the sum of £5000 was announced as having been received.

Anniversary Dinner of the Asylum for Idiots.—The Festival of this excellent Charity was held on Thursday, the 27th ult., at the London Tavern, the Right Honourable the Lord Mayor in the Chair. Among the company present were Lord Monteagle, Lord Raynham, Sir George Carroll, Mr. Thomas Chambers, M.P., Mr. Alderman Wire, and many other friends of our charitable institutions. It appears that the Asylum for Idiots is in a prosperous condition; and few can have travelled on the London and Brighton Railway without being struck with the beauty of the edifice lately constructed for these unfortunate persons near Red Hill. It will be remembered that the Asylum was originally situated at Highgate, with a branch establishment at Colchester; and there are now 256 children in the two asylums, Red Hill and Colchester. The new Asylum was opened in July last, and is calculated to receive 400, but possesses capabilities for a larger number. The speeches delivered at the dinner were characterized by great earnestness and eloquence, and the results must have been most gratifying to the promoters of the Charity, as a sum amounting to nearly £2000 was subscribed during the evening. Some just compliments were paid to Dr. Andrew Reed, who may be said to have founded the Institution, and who, by his indefatigable exertions, has succeeded in completing a great work of benevolence, which, we trust, will endure for ages, as a monument to his disinterested efforts in behalf of a miserable class of objects who have hitherto been considered as the outcasts of humanity. The experience of the modern treatment of idiots has shown, that these poor creatures possess some latent powers of improvement, by the due cultivation of which they may be elevated in the social scale, and be enabled to rank with sentient and intelligent beings. Dr. Conolly, the joint Secretary to the Asylum with Dr. Andrew Reed, was absent from the dinner in consequence of indisposition.

University College Hospital.—The Committee, at their meeting on Wednesday last, received a munificent donation of £100 from an unknown friend, whom they have since ascertained to be Mr. Samuel Sharpe.

Mortality among Seamen on the Coast of Africa.—Two letters were forwarded to Lloyd's on Wednesday from the Lords Committee of the Privy Council for Trade, in order that the underwriters might consider their contents. The first was from the Governor of Sierra Leone, dated January 9; and the second, an enclosure from Mr. Bradshaw, the Acting-Colonial Surgeon at Sierra Leone. The Colonial Surgeon says:—"I have the honour to state, for the information of your Excellency, that from the numerous cases daily coming under my observation, of the vile way in which the merchant seamen, trading in the adjacent rivers in this colony, are treated, I feel it incumbent on me to lay the matter before your Excellency, with a view that the existing evils may, if possible, be remedied. The ships go up these rivers ill-found in every respect for the climate; the men are overworked in hot-beds of disease, and, as a natural consequence, fall sick. When sick they have no care, nourishment, or medicine, and many hundreds of fine fellows die from want and neglect, and are thrown in to the mangrove swamps to breed still greater disease, or, at the caprice of the captains, are sent to Free Town, for Medical aid, in an open boat, without even a drink, a journey of two days and nights, exposed to an African sun. To remedy this great evil I would most respectfully suggest to your Excellency, that no ships should be allowed to trade in the rivers from the 1st of July to the 31st of December; or if they do, that every vessel should find Kroomen to load the vessel, and not have Europeans murdered by wholesale, as they are at present. I would also strongly recommend, that every vessel should have a good supply of preserved soup and wine, or brandy; as also the requisite medicines, as in very many instances the poor sailors die from the want of nourishment. This is particularly the case with the French merchant sailors. This past year the coroner has felt it his duty to inquire into some of the cases that died on the passage here, in the open boats from the rivers, when it was distinctly proved that the sick were put into the boats without anything but a hard biscuit, and that their lives were lost from the want of food and care; but as it occurred outside the colony, there were no means of punishing the captains. I feel convinced your Excellency will only have to put the subject of this letter before both governments, when they will speedily adopt some measures to put a stop to so disgraceful a state of things."

Miss Nightingale.—In General Orders, dated Headquarters, Sebastopol, March 16, 1856, I find the following paragraph:—"No. 1.—It is notified, by desire of the Secretary of State for War, that Miss Nightingale is recognised by Her Majesty's Government as the General Superintendent of the female nursing establishment of the Military Hospitals of the Army. No lady, sister or nurse, is to be transferred from one Hospital to another, or introduced into any Hospital, without previous consultation with her. Her instructions, however, require her to have the approval of the principal Medical Officer in her exercise of the responsibility thus vested in her. The principal Medical Officer will communicate with Miss Nightingale upon all subjects connected with the female nursing establishment, and will give his instructions through that lady."

The Medical Faculties of the Russian Universities in 1854.—The following is the latest statement that has been published:—*Moscow.*—707 students; library, 70,300 works, zoological museum, 66,156 specimens; in the mineralogical, 11,391, and in the herbarium, 28,000. In the botanical garden, 7275 plants; in the chemical and pharmaceutical laboratory, 3768 apparatus. In the museum, 7018 anatomical preparations, 2344 in comparative anatomy, and 706 in pathological anatomy; surgical instruments, 252. The Medical section of the clinic, with 60 beds, treated 399 patients; and the ambulatorium or dispensary, 2586. At the Hospital clinic, 1831 patients were treated. The surgical section having 60 beds, treated 196 patients; and the ambulatorium, 1655,—224 operations being performed. In the surgical clinic at the Hospital, there were 618 patients, and 56 important operations; the midwifery section treated 603 women; the ambulatorium, 454. There were 321 practitioners in the various grades, including midwives, admitted. *Kiew.*—183 students; 93,158 works in the library; 37,377 specimens in zoology; 15,869 minerals; 2717 apparatus in chemical laboratory. The museum contains 1859 preparations in physiological, 1268 in pathological, and 248 in comparative anatomy. The herbarium had 13,703 specimens, and the garden 5660. The medical clinic, 20 beds and 118 patients; the ambulatorium, 358. In the military Hospital, 1875 patients. Surgical clinic, 20 beds and 155 patients; ambulatorium, 898; operations, 347; instruments, 1292; military Hospital, 1714 patients, and 67 operations; midwifery clinic, 8 beds, 28 patients; ambulatorium, 217; instruments, 598. Practitioners admitted, 156. *Charkow.*—213 students, and 27,833 works in library; mineral cabinets, 11,739 specimens; anatomical specimens, 1371; zoological, 16,289; botanical, 46,544; garden, 18,490. Medical clinic, 16 beds and 125 patients; ambulatorium, 537. Surgical, 21 beds, and 148 patients; ambulatorium, 892; operations, 160. Midwifery, 6 beds, and 34 women. Practitioners admitted, 102. *Kasan.*—175 students; library, 23,779 works; mineralogical museum, 22,212 specimens, zoological, 6135, anatomical, 3966, and

herbarium, 10,000. Medical clinic, 26 beds, and 160 patients; ambulatorium, 162; surgical clinic, 26 beds, 118 patients. Midwifery, 18 beds, and 47 patients. Practitioners received 39. *Dorpat.*—266 students; 48,818 works in the library; mineralogical collection, 16,728; zoological, 10,748; anatomy, 1175; comparative anatomy, 1964, and pathological anatomy, 994 specimens. Botanical garden, 11,325 plants. Medical clinic, 20 beds, and 167 patients; ambulatorium, 2085. Surgical, 20 beds, and 146 patients; ambulatorium, 696. Operations, 188. Instruments, 1259. Midwifery, 14 beds, and 80 patients. Practitioners admitted, 104. *St. Petersburg.*—There is no Medical Faculty in the University, but the Medico-Chirurgical Academy attached to the War Ministry had 596 students; and, at the University of *Helsingfors*, there were 43 Medical students. There were thus about 2000 Medical students educating during 1854; and it will be seen from the above account, that however well supplied with material as regards books and museums, their opportunities of practical observation were very limited.

Monthly Return of the Births and Deaths in Eight Principal Towns of Scotland.—During the month of February there were registered in the eight principal towns of Scotland, 2595 births, of which 1290 were males and 1305 females; 1885 deaths, of which 916 were males and 969 females; allowing for increase of population, this would give at the annual rate of one birth in every 27, and one death in every 37. The births fall short of those registered during Jan. by 148, the deaths by 153. Of the 1885 deaths in the eight towns, 839, or 45 per cent., were under five years of age. The proportion of deaths under five years of age in the different towns, were, Perth, 32 per cent.; Aberdeen, 35; Paisley, 38; Edinburgh, 39; Leith, 40; Greenock, 43; Glasgow, 47; and Dundee, no less than 60 per cent. of the total deaths. The deaths from the zymotic class of diseases amounted to 489, and thus constituted 25 per cent. of the total mortality. The presence or absence of epidemics caused this proportion to vary considerably for the different towns. Thus the proportion of deaths from this class of disease in Paisley was only 14 per cent. of the total mortality; in Glasgow and Leith, 21 per cent.; in Edinburgh, 23; in Aberdeen and Greenock, 27; in Perth, 29; while in Dundee the prevalence of epidemic small-pox raised the proportion to 48 per cent. of the total deaths. Dundee still suffers much from small-pox, but the disease exhibited symptoms of a decline, the deaths having fallen from 95—which they were during January—to 70 during February. The mortality from this single disease in Dundee during February, constituted no less than 29 per cent. of the total deaths. The milder weather during February had apparently the effect of diminishing the number of deaths from consumption and diseases of the respiratory organs. Thus January, with its mean temperature of 35°, registered 236 from consumption, and 284 from diseases of the respiratory organs; while February, with its mean temperature of 40°, registered 223 from consumption, and 266 from diseases of the organs of respiration.

Mortality Notabilia.—The total number of deaths registered in the week that ended on Saturday was 1396. In the corresponding weeks of the ten years 1846-55, the average number was 1285, which, if raised in proportion to increase of population, becomes 1413. There is a difference of only 17 between the corrected average and the number actually registered in the week. The increase in the deaths registered arises from more than a due proportion of coroners' cases being entered in the register books at the end of the quarter. Of 228 deaths produced by the zymotic or epidemic class of diseases, 65 were caused by typhus and common fever, which occurred chiefly in the Eastern and Southern divisions; 51 by hooping-cough. Phthisis was fatal in 141 cases, of which 29 occurred to persons under 20 years of age, 61 between 20 and 40 years, 41 between 40 and 60, and 10 to persons who had passed that period of life. Bronchitis carried off 127 persons, nearly half of whom were men and women more than 60 years old. A smoker died from mixing stramonium with his tobacco. There were also 5 deaths from delirium tremens. A boy of 9 years died in Salter's-alley, St. George's-in-the-East, from cretinism.

Births.—The births of 994 boys and 983 girls, 1977 children, were registered—average, 1644.

Meteorology.—The mean height of the barometer in the week was 29·908 in. On Sunday and Saturday the mean readings were above 30 in. The highest reading in the week was 30·13 in., and occurred on the latter day. The mean temperature of the air in the week was 37·7°, which is 4·9° below the average of the same week in 38 years (as determined by Mr. Glaisher). The mean temperature was below the average on every day of the week, and the extent of this depression on the last two days was more than 7°. On Friday the thermometer fell so low as 26°; the highest reading occurred on the previous day, and was 51°; and the entire range of the week was 25°. The mean dew-point temperature was 31·3°, and the difference between this and the mean temperature of the air was 6·4°. The temperature of the water of the Thames, which was 45·5° on Monday and Tuesday, fell to 43° on Saturday; the mean of the week was 44·1°. Wind, east and north-east. No rain. Horizontal movement of air, 710 miles.

Deaths in Public Institutions for the Week ending March 29:—

	Males.	Females.	Total.
Workhouses	86	85	171
Prisons	2	1	3
Military and Naval Asylums ..	3	..	3
General Hospitals	54	27	81
Hospitals for Special Diseases ..	9	4	13
Lying-in Hospitals	..	3	3
Military and Naval Hospitals ..	5	..	5
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	5	..	5
Total	164	120	284

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	6	3	8	1	8
North	490,396	4	2	4	9	1	15
Central ..	393,256	2	1	4	9	..	7
East.....	485,522	4	5	7	12	..	17
South	616,635	2	9	10	13	2	18
Total..	2,362,236	13	23	28	51	4	65

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, March 29, 1856.*

Causes of Death.	In the Week ending Saturday, March 29, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 37·7						° 42·6
All Causes	1396	639	201	241	246	57	1284·7
Specified Causes	1384	639	201	241	246	57	1278·9
Diseases:—							
1. Zymotic Class	228	159	25	27	15	2	222·8
2. Dropsy, Cancer, and others of uncertain seat	67	10	6	27	20	4	55·1
3. Tubercular Class	198	83	62	42	11	..	207·0
4. Of Brain, Nerves, etc. ..	161	80	18	36	20	7	144·1
5. Of Heart, etc.	75	15	13	20	24	3	50·7
6. Of Respiratory Organs ..	249	118	19	35	71	6	240·6
7. Of Digestive Organs ..	71	33	10	15	11	2	67·6
8. Of Kidneys, etc.	11	..	2	4	3	2	11·9
9. Of Uterus; viz. — Puerperal Disease, etc. ..	11	..	8	2	1	..	11·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	3	3	1	1	..	8·9
11. Of Skin, etc.	4	..	1	..	3	..	2·3
12. Malformations	4	4	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	34	34	..	..	..	..	30·7
14. Atrophy	36	26	1	2	7	..	30·1
15. Age	56	..	..	..	27	29	50·4
16. Sudden	40	20	1	6	11	2	41·0
17. Violence, Privation, etc...	131	54	32	24	21	..	100·7
Causes not specified.. ..	12	..	..	..	..	..	5·8

BOOKS RECEIVED.

Chemistry, as Applied and Relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXI. Glasgow: Mackenzie.

On the Effects of Lead on the Heart. By Dr. Corson. New York. 1856.

Journal de Médecine de Bordeaux. Mars. 1856.

Report upon Bethlehem Hospital for 1855.

On Improvements recently made in the Treatment of Stricture of the Urethra. By James Arnott, M.D. London: Churchill. 1856.

Fifty-fifth Annual Report of the State of the General Lunatic Asylum near Nottingham. Nottingham. 1856.

Diary of the Crimean War. By Frederick Robinson, M.D. London: Bentley. 1856.

The Journal of Psychological Medicine and Mental Pathology. Edited by Dr. Forbes Winslow. April. 1856.

The Pharmaceutical Journal. April. 1856.

The Westminster Review. April. 1856.

An Appeal in behalf of the Royal Medical Benevolent College. By Dr. T. Herbert Barker. Bedford. 1856.

A Classification of Wounds and Injuries received in Action. By J. R. Taylor, C.B. Bradbury and Evans.

The Edinburgh Medical Journal. April. 1856.

TO CORRESPONDENTS.

Mr. Westropp's paper has been received; but we cannot pledge ourselves as to the exact period of its appearance in print.

A Constant Reader suggests that there ought be only two examining bodies for the Medical Profession; one for the Physician, and the other for the General Practitioner.

Omega.—We are clearly of opinion, upon the facts stated, that a month's notice is *not* sufficient; and that, in the absence of any specific agreement, the engagement is valid for a year.

Philologus.—Leuchæmia signifies white blood, from λευκος, white, and αἱμα, blood; and Leucocythemia signifies white celled blood, from λευκος, white, κυτος, a cell, and αἱμα, blood. The κ in the first is changed into χ, and the τ in the second into θ, in consequence of the aspirate following those letters.

M. D., Alford, Lincolnshire.—We can state upon the best authority, that the story connecting the name of an eminent surgeon with the practice of a female "Doctor" is wholly destitute of foundation.

Inquirer.—The institutions mentioned in Schedule C of the New Medical Reform Bill are the Royal College of Surgeons of England, the Royal College of Surgeons of Edinburgh, the Faculty of Physicians and Surgeons of Glasgow, the Royal College of Surgeons of Dublin, and the Society of Apothecaries in London. The diplomas and licences of these bodies entitle their possessors to register as "Surgeons."

C. von Oelberg is recommended to explain his plan at one of our Medical Societies or Hospitals, as it is only by its practical results that the value of a new course of treatment can be tested.

Dr. Peacock's Lectures have been received, and will shortly be inserted.

Mr. T. H. Huxley will receive a private communication.

Kuesis we should recommend to consult the following works upon the subjects to which he refers:—Carpenter's "Human Physiology," and the last edition of the "General and Comparative Physiology;" Mr. Newport's Researches in Phil. Trans., 1852; Müller's Embryology—Supplement by Baly; Bischoff on the Maturation and discharge of Ova, independent of Coition, translated by Gilman and Tellkamp, New York, 1847; M. A. Naciborski de la Puberté, Paris, 1844; Pouchet—"Theorie positive de l'ovulation spontanée ex de la fécondation des mammifères et de lespèce humaine," Paris, 1847; Article "Teratology," by Prof. Vrolik, in the Cyclopædia of Anatomy and Physiology.

Reynolds v. Bridge.—We have received a copy of the *Taunton Courier*, containing a full report of this trial, which we shall notice next week.

COMMUNICATIONS have been received from—

Dr. Prior; Mr. Martin; Mr. Thornton, Crimea; Dr. Kidd; Dr. W. Pretty; Dr. Andrew Smith; Dr. Peacock; Mr. Jonathan Hutchinson; Dr. Letheby; Mr. Seaman Garrard; Inquirer; Mr. W. L. Britton; Mr. George A. Hutton, Graham's Town; Mr. Henry Marston; Mr. G. M. Jones; L. O.; Mr. F. T. Hulke; The Royal Institution; Mr. W. T. Gage; A Constant Reader; Dr. W. Webb; Dr. C. Von Oelberg; Dr. Frederick Farre; Mr. J. Stewart Graves; Dr. Ramskill; Mr. T. Westropp; Mr. Crofts; The Dreadnought; Dr. Ince; The Surrey Dispensary; Dr. Eubulus Williams; Dundee; Dr. Hillier, University College; Mr. Beck; Mr. Henry Thompson; Omega; Philologus; M. D.; Dr. Elliotson; Dr. Radcliffe; Dr. Druitt; The Geological Society; Mr. T. H. Huxley; Dr. Bond; Dr. Beale; The Hon. Secretaries of the Epidemiological Society, etc.

APPOINTMENTS FOR THE WEEK.

APRIL.	Miscellaneous Register.	Society Meetings.
5. Saturday....	Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.	Medical Society of London, 8 p.m.:—Dr. J. F. Brown "On Xiphi-sternal or Pericardial Chisel-sound, with its practical Application."
7. Monday.....	Operations at the Metropolitan Free Hospital, 2 p.m.	Epidemiological Society, 8½ p.m. *Annual Meeting.* Also, Report of the Epizootic Committee "On Pleura-Pneumonia among Cattle;" and Mr. Kesteven "On Concurrent Scarlet Fever and Measles." Royal Institution, 2 p.m. General Monthly Meeting of the Members. Chemical Society, 8 p.m.
8. Tuesday	Operations at Guy's, 1 p.m.	Royal Medical and Chirurgical Society, 8½ p.m. Royal Institution, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy." Zoological Society, 9 p.m.
9. Wednesday ..	Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m. Royal College of Physicians.—*Lumleian Lectures:* Dr. Robert Lee "On the Structure, Physiology, and Diseases of the Ovaria, Uterus, and Heart."	Hunterian Society, 8 p.m.: Dr. Oldham will communicate some Cases Illustrative of a Particular Form of Accidental Uterine Hæmorrhage. Geological Society, 8 p.m. (a) Literary Fund, 3 p.m. Royal Society of Literature, 8½ p.m.
10. Thursday....	Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.	Royal Society, 8½ p.m. Royal Institution, 3 p.m.: Professor Tyndall "On Light."
11. Friday	Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.	Royal Institution, 8 p.m. C. W. Siemens, Esq., "On a New Steam-Engine." Astronomical Society, 8 p.m. Botanical Society, 8 p.m.

(a) Subjects—1. On the Strata in the Cliffs at Hastings. By S. H. Beckles, Esq., F.G.S.—2. On the Geology of Sydney, Australia. By J. S. Wilson, Esq. Communicated by Sir R. J. Murchison, F.G.S.—3. On the Stratigraphical relations of the so-called Sands of the Inferior Oolite. By Dr. Wright. Communicated by Prof. Ramsay, F.G.S.—4. On the Probable Origin of Dover Straits by means of a Fissure. By M. A. Boué, For. Mem. G.S.—5. On the Rocks and Lignites of Bovey Tracey, Devonshire. By Dr. Croker. Communicated by the President.

ORIGINAL LECTURES.

LECTURES
ON
THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.
Licentiate of the Royal College of Physicians; Professor of Physiology and General and Morbid Anatomy in King's College, London.

Lecture II.

ARRANGEMENT OF THE ARTERIES AND VEINS IN THE GALL BLADDER, TRANSVERSE FISSURE, AND LARGE PORTAL CANALS.

Portal Canals—Portal Vein—Hepatic Artery—Hepatic Duct—Parietal Sacculi, the so-called "Mucous Glands" and Vasa Aberrantia.

Gentlemen,—Upon taking a general view of the structure of the liver, we saw that this large gland was composed of a number of small elementary parts or lobules closely resembling each other in their general appearance as well as in their minute structure. In the majority of animals these lobules, at certain points, communicate with one another, but in the pig each is completely isolated from its neighbours by a fibrous capsule,—an arrangement which renders the liver of the pig very favourable for studying the relations of the different structures of which the lobule is composed.

Anatomists have been, perhaps, too anxious in their endeavours to show, that the livers of animals generally were arranged in a manner similar to that of the pig. We ought, rather, I think, to look upon this complete isolation of these small ovoid or many-sided lobules as exceptional, than to regard it as the arrangement which exists in vertebrate animals generally. In considering the structure of the human liver we shall find, that the lobules are in many respects very different in their form and disposition from those of the pig.

In all animals, however, the blood is carried to each lobule by the small branches resulting from the subdivision of the portal vein and hepatic artery. It is carried away by a small vein arising in the centre of the lobule, at a point between the branches of the portal vein, which unites with other branches to form at length the large hepatic vein by which the blood is poured into the inferior cava. The bile which is formed is carried away by branches of the duct. These unite to form larger branches, which run close to those of the portal vein and hepatic artery.

Portal Canals.—The channels in which the latter vessels run are the portal canals, which are bounded by the lobules. The course which the portal canals take varies considerably, being sometimes highly tortuous and irregular, and in other instances so straight and even, that they appear to radiate from the transverse fissure of the liver towards the circumference of the lobes, in which case they are seen to alternate with the hepatic venous canals. This point is well shown in this preparation of the thin lobe of a rabbit's liver, in which the portal vein has been injected white, the artery red, and the duct dark blue, while the branches of the hepatic vein are yellow. The direction of the portal canals is also tolerably straight in the seal, but less so in the pig. In sections of human liver, the smallest channels seem to alternate in the manner described, and, as it were, to interdigitate with the hepatic venous canals. When the smaller trunks have been divided at right angles, a small hepatic vein is seen to be surrounded by several branches of the portal vein, artery, and duct, equidistant from it, and a short distance from each other, as represented in this diagram. In the thickest part of the liver the course of the portal canals is very tortuous, and a canal lies on many different planes at different parts of its course. When the lobules of the pig are divided, the hepatic vein is seen to be the centre of a space bounded by twigs of the portal vein, artery, and duct, which ramify upon the capsules of the lobules and give off branches to the interior. The dispositions of the branches of the portal vein is so regular, as to give the idea, when examined by low powers or with the naked eye, of a complete venous ring, in the centre of which is situated a branch of hepatic vein. By this mode of ramification the smaller portal vessels more or less imperfectly enclose a space which varies somewhat in form in different animals, and according to the manner in which the section is made. In the intervals between the points at which the branches of the vessels reach the lobules, the secreting structures forming the interior of one lobule communicate with those of the adjacent ones. In the pig the complete isolation is dependent partly upon the disposition of the small vessels, but principally upon the presence of the fibrous capsule as before-mentioned.

Portal Vein.—The large portal vein is formed by the union of the veins of the stomach and intestines, the pancreatic and splenic veins and the veins of the mesentery, omentum, and gall bladder. The branches of the portal vein may be said, in general terms, to be arranged round the lobules. The smaller branches give off twigs to the neighbouring lobules in a stellate manner. The branches upon different sides do not anastomose so as to encircle each lobule with a venous ring, as many authors, following Kiernan's figures, have described and represented, but communicate with each other only through the intervention of capillaries, as Mr. Bowman and Kölliker have described. Even in the pig there is no vascular ring, although to the unaided eye it might appear so. In the liver of the human subject, and in livers allied to it, small branches of the portal vein can often be traced from the interlobular fissures into the lobule, breaking up into capillaries as they go.

In dried preparations, owing to the close approximation of trunks which in the recent state had occupied very different planes, an appearance as if the smaller trunks communicated with each other and thus encircled the lobule in a venous ring, is undoubtedly produced. That such an appearance is fallacious is proved by carefully examining well injected specimens in fluid. (a) Very rarely, however, small branches of the vein do anastomose, but this communication is exceptional, and a corresponding anastomosis even occurs, sometimes, between branches of the hepatic vein. The diagrammatic representations of most authors would lead you to suppose that such an arrangement, in the case of the portal vein, was constant, which is certainly not the case.

The mode of distribution of the small branches of the portal vein, is shown in these diagrams of the pig's liver and that of the human subject.

In the coats of the gall-bladder, in the transverse fissure, and in the portal canal of the human liver, there exists an intimate network of veins, which pour their blood into the large branches of the portal vein. The arrangement of these branches is peculiar and exceedingly beautiful, especially in the gall-bladder, in the coats of which there exists an abundant venous and arterial network; each branch of artery being accompanied by two branches of vein; and when these sets of vessels are injected with different colours, the very beautiful appearance exhibited in this preparation is produced.

Hepatic Artery.—Many branches of the artery pass to the capsule of the liver, in which they ramify abundantly, forming a network having large meshes. These capsular branches and their anastomoses, are readily injected in the liver of the fœtus or child. Each branch of portal vein, in the portal canals, is accompanied with at least one branch of the hepatic artery, and frequently by two or three which communicate with each other by anastomosing branches.

The artery gives off numerous branches in the portal canals. The greater number of these are distributed upon the coats of the ducts. The thick walls of the larger ducts are abundantly supplied with arterial blood; but the smaller branches of the duct, the coats of which are extremely delicate, pass through the meshes of an arterial network. In the pig this network may be very readily demonstrated upon the surface of each lobule, as represented in this diagram; but in the human subject, and in mammalia generally, the branches are less numerous, and are seen only in the inter

(a) It is better to use for this purpose a transparent injection which can be examined by transmitted light, as will be described in the next lecture.

lobular spaces; other branches supply the coats of the portal and hepatic veins. The greater quantity of blood, after passing through these small arteries, is collected by venous radicles which empty themselves into branches of the portal vein. A certain proportion, however, is poured into the capillaries of the lobule. Some very small straight arterial branches may be traced from the portal aspect of the lobule for a short distance into its interior, where they join the portal hepatic plexus of capillaries. The whole of the arterial blood, therefore, which supplies nutriment to the several structures of the liver, passes through the capillaries of the lobule before it is returned to the heart, and no doubt furnishes a small portion of the matters from which the bile is formed. The artery was originally regarded by Kiernan as one of the sources of the blood conveyed to the secreting structure of the liver, by the branches of the portal vein.

The meshes of the network which the smallest branches of the artery contribute to form are many times wider than those of the venous capillaries in the lobule; but the diameter of the small vessels of which this network is composed is very much less than that of the portal capillaries. I have measured the diameter of the smallest arterial branches in the pig and in the human subject. The average measurements were as follow; but these numbers must be considered rather as approximations to the truth than as absolutely correct, because it is impossible to ascertain to what degree the vessels have been distended by the injection:—

	Pig. Of an inch.	Human. Of an inch.
Smallest branches of artery . .	1-4000th	1-4000th
Venous capillaries of lobule . .	1-1600th	1-1300th
Small ducts on surface of lobule	1-1600th	1-1800th
Finest portions of duct . . .	1-2500th	1-1800th

From what has been said with reference to the artery, it is clear that the capillaries of the lobule can be injected from it. The injection generally appears quite at the portal surface of the lobule, and gradually extends towards the centre, but sometimes the central capillaries become injected from the artery, while the marginal capillaries are quite free from injection. This has occurred to me both in the human subject and also in the pig; but it was confined to certain small portions of the liver, while generally the small artery could be readily traced into the marginal capillaries. In the situations referred to, the branches of the portal vein were very imperfectly injected, and the capillaries did not contain any injection, in consequence, probably, of being filled with fluid previous to injection, while the central capillaries were empty. The injection having found its way by one channel into these central capillary vessels, gradually spread through them until the appearance above referred to was produced. If the preparation exhibiting this arrangement be compared with others from the same liver, its mode of production will be rendered evident. This I believe to be the explanation of the result obtained by some anatomists, who were led to conclude from the appearance above indicated that the small arteries emptied themselves into the capillaries nearer to the intralobular vein. The whole of the blood, therefore, which has become venous after passing through the arterial network, mixes with that of the portal vein, either before the trunk enters the liver, or into the large branches in the portal canals, or into the lobular capillaries, and probably takes part in the formation of bile.

The arrangement of the artery and veins is different in the gall-bladder, and in the transverse fissure of the liver and large portal canals. In these situations even very small branches of the artery are accompanied by two small branches of the vein. This arrangement facilitates the free return of blood from these parts, and may be looked upon as a provision for permitting the amount of stretching or pressure to which these vessels must necessarily be subjected, without interfering with the free circulation of blood through them. As the united capacity of the veins is twice that of the artery, the free and equable circulation in these small vessels is provided for under all circumstances. The chance of congestion occurring in the portal canals is still further provided against by the communication of the arterial network with the capillaries of the lobule.

Hepatic Duct.—At least one branch of the duct accompanies each branch of the portal vein, but frequently there are two or three. From the branch or branches accompanying the vein, several smaller ones pass off to the secreting structure. In the pig, the interlobular ducts, while running between contiguous lobules, are applied, as it were, to the exterior of their capsules, and give off much smaller twigs on either side, which perforate the capsules, and become connected with the cells in the manner in which I shall have to describe in my next lecture.

Parietal Sacculi and Vasa Aberrantia.—In ducts about the $\frac{1}{125}$ of an inch in diameter, and in larger ones, there are many little saccular dilatations situated in the coats. These are the so-called glands of the ducts, and in the pig and many other animals which I have examined, are arranged all round the tube. They may be described as, for the most part, simple oval pouches, connected with the cavity of the duct by a very narrow neck, often not the $\frac{1}{500}$ of an inch in diameter. In the larger ducts, they are branched, and often run for some distance in the coats. Occasionally the branches of one sacculus anastomose with those of another. The largest are singularly complicated, and project some distance from the duct lying in the areolar tissue which surrounds it.

In the human subject, a somewhat different arrangement occurs. Instead of being situated entirely round the tube, the openings form two rows or lines, situated upon opposite sides of the ducts. The greater number of these openings are, however, the orifices, not of sacculi, like those in the pig, but of small irregular tubes, which run obliquely for some distance in the coats of the duct, and anastomose with each other. Some of these branches leave the ducts, and anastomose just outside the trunk from which they are given off.

Many of the small ducts, about the $\frac{1}{80}$ of an inch in diameter, have numerous cœcal pouches connected with them, arranged pretty close together, gradually becoming shorter as the duct becomes smaller. The branches from these ducts are composed of basement membrane only. The irregular ducts with cœcal pouches are very numerous in the transverse fissure of the liver, where they form an intimate network connected with the larger branches of the duct in this situation. These were described by Theile as branching mucous glands, but were first noticed and named *vasa aberrantia* by Weber. Not only are the right and left hepatic ducts in the transverse fissure of the liver connected by vasa aberrantia, as Weber was the first to point out, but the anastomosing ducts in this situation are so numerous, that they form a network, which, in well-injected specimens, presents a very beautiful appearance. Through the intervention of such branches, all the trunks in the transverse fissure communicate with each other. In the larger portal canals, I have demonstrated the existence of numerous ducts of a similar character. In this diagram, some of these beautiful ducts, with their numerous follicular appendages, are represented.

Some observers, and, lately, Lereboullet, have altogether failed to demonstrate these curious branches. In every moderately good injection of the ducts, they are seen in great number, although it is not always easy to isolate them, in consequence of the quantity of areolar tissue with which they are surrounded. It is, however, difficult to understand how the smaller ducts could be injected without these tubes being rendered sufficiently distinct.

These ducts are imbedded in areolar tissue, which is abundant in the parts where they are found. In the transverse fissure, the ducts lie nearer to the hepatic substance than to the portal vein; but they can be easily removed, without cutting into it. I have been able to trace straight branches from the vasa aberrantia directly into the hepatic substance. The further course of these branches is that of an ordinary duct. In the fœtus, these curious ducts are much less numerous; their course is less tortuous, but they occur in small patches, in which the branches are seen to be very numerous and the anastomoses very frequent. The epithelium is more abundant, and the cells large and dark in colour; so that the injection does not run so readily as in the adult. The quantity of areolar tissue is less than in the adult. The vasa aberrantia lie so close to the hepatic tissue, that it is almost impossible to remove them without a thin layer of the latter, into which they enter at numerous points. There are, nevertheless, many blind extremities.

In the next lecture I shall have to consider the function which these curious ducts and appendages probably discharge, and shall then describe the arrangement of the structure known as Glisson's capsule, and afterwards the distribution of the hepatic vein, and the intimate structure of the lobules.

(To be continued.)

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

Assistant-Surgeon to the Royal Orthopædic Hospital; late Demonstrator of Morbid Anatomy, etc., at St. Thomas's Hospital; now Lecturer on Surgery at the Grosvenor-Place School, etc.

LECTURE VII.

(Concluded from page 329.)

Now, gentlemen, I have described to you the operative and mechanical treatment necessary to the cure of talipes equinus, as indicated by the anatomical condition of the parts involved in the deformity, without reference to any special conditions or modifications dependent upon the cause producing it, or to the degree of the deformity, which I told you ranged from a very slight contraction of the tendo-Achillis—in some cases even unaccompanied with deformity—to the extreme elevation of the os calcis, and extension of the foot, shown in Fig. 20. There are, however, *two classes of cases which demand some special notice*—one on account of the cause, and the other on account of the degree of deformity. I allude, 1st, to the cases of paralytic origin in which the paralysis still continues; and, 2nd, to the cases of right-angled contraction of the tendo-Achillis. I am the more desirous of making a few observations upon these two classes of cases, because, at the present time, much difference of opinion exists among the highest Surgical authorities as to the propriety of operative treatment.

In a previous lecture on the pathology of paralytic deformities I have described the general principles of treatment applicable to these cases, both in the rigid and flaccid condition of the muscles; and illustrated the benefit to be derived from tenotomy and mechanical support in the most severe form of the latter class of cases, even when both feet are affected. You remember that I related the case of a lady, aged 39, who had not walked for twenty-two years, and who walked very well, with the assistance of steel supports, after the division of the Achilles-tendons. Admitting, therefore, the possibility of benefit in certain cases, the great practical question is, whether much good will result from tenotomy in the ordinary run of cases met with in practice, viz., those of talipes equinus in children, resulting from infantile paralysis, and in which paralysis still exists at the time when you may be consulted.

Treatment of talipes equinus with existing paralysis.—This deformity, like all the paralytic contractions, is very easily cured; but Surgeons frequently doubt whether it is worth doing—whether the gain to the patient under the circumstances of existing paralysis, will be sufficient to compensate for any inconvenience or sacrifice the treatment may involve—whether, in fact, the patient will be materially benefited by the removal of the deformity. Many Surgeons say, "Don't operate during the existence of the paralysis, but wait for the return of power." They argue that, after division of the tendo-Achillis, the foot swings, and is, therefore, weaker and less useful to the patient, than when it is held by the contracted tendon. They consider these patients to be in a better condition with a high-heeled boot and the persistent deformity, than with the weakened foot and mechanical compensation by steel supports.

Now, this opinion is decidedly wrong, for the following reasons:—1. In the great majority of cases, the paralysis is limited to a few muscles, viz., those on the anterior aspect of the leg, and these are very unequally affected,—when the extensor communis is completely paralyzed, the anterior tibial and extensor pollicis frequently retain a considerable amount of power; the anterior tibial sometimes escapes altogether when the other muscles are paralyzed; or it may be the only muscle paralyzed when the other muscles escape. By allowing the deformity to continue, atrophy is induced, or, more correctly speaking, increased in the comparatively healthy muscles on the anterior part of the leg, as well as in the great muscles of the calf. Thus, the muscular structures of the leg are still further damaged by the persistence of the deformity.

2. If any return of power should take place in the paralyzed muscles while the deformity remains, it will not be available, as flexion of the ankle-joint cannot take place. I have previously stated, that complete recovery is the rule in cases of slight infantile paralysis, and that partial recovery is almost constant; and to this circumstance I consider we must refer the large number of cases of talipes equinus met with, in which the muscles are in a healthy, or nearly healthy, condition. Moreover, it is found in practice, that the restoration of power is very materially assisted in many cases by the removal of the contraction.

3. By the continuance of the deformity, structural changes in the joint, such as thinning and irregular removal of articular cartilage previously described, and adapted shortening of the ligaments of the joint, are allowed to take place, thus rendering the cure more difficult and less perfect in proportion to the delay.

4. The deformity, when severe, is worth removing solely on account of the effects and inconveniences likely to arise from it, and previously described, such as extreme lameness, or inability to walk; curvature of the spine, etc. The necessity for mechanical support is but a minor evil as compared with these effects. For these reasons, then, I advise you to remove the deformity when severe, in cases of equinus in which paralysis still exists, whatever may be the extent of the paralysis; and, speaking generally, the benefit obvious to the patient will be in proportion to the severity of the case, and the length of time the paralysis has existed; though, as respects the ultimate condition of the limb, the benefit will be in proportion to the early period at which the operation is performed, after the contraction has become confirmed. In cases of slight contraction with much paralysis, no benefit will result. A judicious selection of cases is therefore necessary in the treatment of this kind of deformity, and you must carefully consider the degree of paralysis, the degree of contraction, and, to a certain extent, even the circumstances of the patient; as among the poor, the neglect of, or the inability to carry out, the mechanical and other treatment necessary in these cases, will frequently lead to a return of the deformity, so that only the more severe cases should be undertaken.

There is one class of cases, however, in which tenotomy either should not be had recourse to, or, if performed, it should not be with the intention of making the patient walk while the paralysis still exists. The only object should be that of assisting in the general restoration of power in the muscles of the legs, if this may be thought sufficient to justify the operation. I allude to the cases of general infantile paralysis, in which both arms as well as both legs are completely paralyzed. In these cases the muscles of the hip-joints, as well as those of the spine—in fact, nearly all the voluntary muscles of the body—are sometimes paralyzed. The return of muscular power in these cases is a very slow and uncertain result, as I have previously explained to you. It may not take place for ten or twelve years, and may then be only partial, some muscles remaining paralyzed through life. The rule appears to be, that the arms recover first and more perfectly than the legs, the improvement often commencing within a few months. The spinal muscles and those surrounding the hip-joints recover partially, or it would almost appear completely, in some cases, although their progress may be very slow—while the muscles of the legs below the hips remain either completely paralyzed, or extremely feeble. Nevertheless, during this paralytic stage severe contractions and deformities take place, sometimes at the ankle, knee, and hip-joints.

Now, you will be consulted in these cases, partly on account of the various contractions mentioned, and partly because the patient is unable to walk. If you follow the ordinary rule of practice above laid down, viz.:—to remove

the contractions, and compensate for the existing paralysis by mechanical support, before the spinal muscles and the muscles surrounding the hip-joints have sufficiently recovered to enable the patient to maintain the erect position, and advance the legs after the cure of the contractions—a condition which may be judged of by the power of sitting upright and of moving the legs when in bed,—then you will certainly produce a most severe and incurable form of curvature of the spine, with all its attendant evils and influence in shortening life. The weight of the steel supports, which must necessarily be carried to the waist in these cases, and the efforts made by the children to propel their steel-encumbered legs, greatly assist in producing the curvature of the spine. I have witnessed the evil effects of such practice in several instances, and have recently been consulted in the case of a young lady, aged 10, who is now frightfully deformed, in consequence of a great deal of operative and mechanical treatment having been carried out, first by two of the most distinguished Surgeons of Edinburgh in consultation, and subsequently, because some return of the deformity had taken place, by a Surgeon of this metropolis. The orthopædic treatment ought to have been withheld in this case till the return of muscular power had reached the point above indicated; and, as the case is progressively, though slowly, advancing towards this point, I have directed a discontinuance of all attempts at walking. I have thrown aside all steel supports, and ordered a strict observance of the horizontal position, with active and passive muscular exercises; and other measures calculated to improve the general health, and favour the return of muscular power.

As a rule, then, the *period for operating* in these cases must be judiciously selected, and generally it will not be advisable to operate upon children. The advantages of orthopædic treatment in these cases in the adult are well illustrated by the case previously described, and figured in wood-cuts Nos. 8, 9, 10, and 11.

Treatment of cases of right-angled contraction of the tendo-Achillis.—These are the second class of cases above adverted to as requiring some special notice. It is a very general opinion, that when the heel touches the ground in standing or walking, division of the tendo-Achillis cannot be called for; but this is certainly a mistake. Slight contraction of the tendo-Achillis—not enough to produce obvious deformity, but sufficient to prevent flexion of the foot beyond a right angle with the leg—necessarily produces a certain amount of lameness, for which you may be consulted. This amount of contraction may be produced by any of the causes above enumerated as producing the more confirmed deformity of talipes equinus; and, without entering upon the subject in detail, I will at once state that the best rule of practice will be found, not to operate upon these cases, unless the muscles are in a healthy or nearly healthy condition. I would certainly not advise the operation in paralytic cases in which the paralysis still exists; but in some spasmodic cases, where the muscles above the knee-joint are not involved; and in some cases of traumatic origin, as well as those arising from causes directly affecting the joint, the operation may be performed with great advantage to the patient. But much will depend upon a judicious selection of cases; the precise condition of the joint and of the muscles must be carefully considered before the operation is decided upon in such cases.

I will now briefly describe the two compound varieties of club-foot termed equino-varus and equino-valgus.

TALIPES EQUINO-VARUS.

This deformity is but a slight modification of talipes equinus; and after the full and detailed account I have given you of the latter deformity, in consequence of its frequency and practical importance, it will be unnecessary to say much of its compound variety. When, in addition to the ordinary characters of equinus, there is a certain amount of inversion of the foot, the deformity partakes somewhat of the external characters both of equinus and varus, and is therefore termed equino-varus. The elevation of the heel is the predominant condition, but, according to the extent of the inversion, the patient walks on the outer metatarsal bones, and chiefly on the anterior extremity of the fifth metatarsal bone.

The external characters are modified according to the cause producing the deformity, as in talipes equinus, and the general appearance of the spasmodic and paralytic cases is well shown in the casts which I now exhibit to you:—

Fig. 27.

Spasmodic Equino-varus.

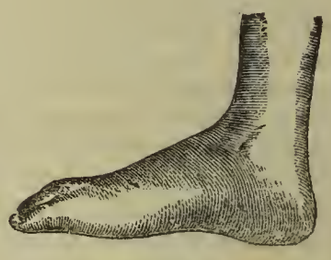
Fig. 28.

Cure of case exhibited in Fig. 27.

Fig. 29.

Paralytic Equino-varus.

Fig. 30.



Cure of case exhibited in Fig. 29.

The anatomical deviations are essentially the same as in talipes equinus, but the navicular bone is somewhat displaced inwards, leaving the outer part of the head of the astragalus exposed on the dorsum of the foot. When the deformity has existed any length of time, structural shortening of the anterior tibial muscle is generally produced, and sometimes the same condition also occurs in the posterior tibial muscle.

The pathology of this deformity is essentially the same as that of talipes equinus. It is a non-congenital affection, and, though not very materially differing from the slight forms of varus, must not be confounded with it. It occurs most frequently in the right foot only; secondly, in the left foot only; and thirdly, in both feet; in this respect also resembling talipes equinus. It is produced by the same causes which give rise to talipes equinus, and, therefore, the great majority of cases met with in practice will be found to depend either upon spasmodic or paralytic affections, and the muscles will be found in the same conditions as described in talipes equinus.

The treatment is the same as that required for talipes equinus, but in some cases the anterior tibial, or the posterior tibial tendon, or both may require division; and in the mechanical treatment it is the more necessary to make use of the Scarpa's shoe with a double cog-wheel, by which the lateral inclination of the foot may be controlled.

TALIPES EQUINO-VALGUS.

This deformity is characterized by a certain amount of eversion of the foot co-existing with contraction of the tendo-Achillis and elevation of the heel. It is, therefore, a compound variety between the simple form of talipes equinus and talipes valgus; but it cannot be considered as the analogue to equino-varus, because, while in that deformity elevation of the heel is the predominant condition—it is, in fact, but a slight modification of talipes equinus—in talipes equino-valgus the elevation of the heel is comparatively very slight. In talipes equino-valgus eversion of the foot is the predominant condition—it is, in fact, but a slight modification of talipes valgus—and a certain amount of contraction of the tendo-Achillis is so constantly present in all the more severe forms of talipes valgus, whether of congenital or non-congenital origin, that I think it will be better to delay the further

description of this deformity till I describe to you the general and specific characters of talipes valgus. I shall then particularly advert to the influence of a contracted condition of the tendo-Achillis in the external form of the foot when a disposition to eversion exists; and it will be seen that the pathology and treatment of this compound variety are essentially the same as in the so-called simple form, talipes valgus.

In the next lecture I propose to consider the important variety of club-foot called talipes varus.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

A FEW REMARKS ON RHEUMATISM.

By Staff Assist.-Surgeon WILLIAM RAMSAY STEUART.

The prevalence of rheumatism and rheumatic fever at this season will afford a field for observation on the different peculiarities connected with the disease.

The nature and result of the inflammatory attack, as well as the parts affected, are sufficiently characteristic; and, although the disease has been subdivided for the sake of nomenclature, still the structures involved are the same, the disease being essentially inflammation of the fibrous tissue of the body. This structure, as is well known, is found in fascia, cellulo-fibrous and aponeurotic; as well as the membrane entering into the formation of joints in general, and that surrounding the heart and interposed between the serous layers of its valves.

The inflammation which affects this structure, wherever it is found, is in general termed specific; but the inflammation of mucous or serous membranes might each equally be so termed, as it is only from the result of the process of inflammation in this fibrous membrane that the term is derived.

Although we have this inflammation affecting the fibrous tissue generally, still local forms of the disease occur, causing lumbago, sciatica, and, when affecting the fascia of the chest, pleurodynia.

Inflammation of the fascia surrounding the muscles and the aponeurosis of a limb frequently exists, in a subacute form, the patient not manifesting any febrile symptoms or other constitutional affection; but, in many instances, they shortly supervene, and then commences the real inflammation of the fibrous tissue, or true acute rheumatism. The pulse rises; perspiration is profuse. The countenance becomes flushed, tongue foul; and the symptoms of ordinary fever set in, but without delirium. The local signs are familiar enough.

The result of inflammation of the white fibrous tissue is increased thickness, induration, and rigidity, caused by the exudation of liquor sanguinis between its fibres, and its organization into lymph; and this will at once explain the stiffness, immobility, and occasional loss of power which are the invariable results of the chronic type or a protracted attack.

Of nineteen cases of acute rheumatism treated by me at Aldershot Camp since the beginning of November last, four have been of a very severe type. By this it is to be understood, that the constitutional, as well as the local symptoms, were so severe as to peril the lives of the patients. Each was affected with rheumatic carditis, the physical signs being the ordinary endocardial bellows-sound. In one instance only did I detect the friction-sound of pericarditis; nor was there any effusion.

These heart-symptoms were preceded by delirium, which was most active at night. I am not prepared to state whether the pericarditis preceded the affection of the valves in the other three instances, but I am inclined to think not, as I made it a practice to examine the heart once a-day throughout the disease, and I could never detect any friction-murmur.

In these four cases the patients had each suffered from rheumatic fever, and the larger fibro-serous surfaces, viz., those of the joints, were attacked in the first instance.

As has been previously stated, rheumatic affections, or subacute inflammation of the fascia and aponeurosis, may exist without any constitutional derangement or febrile excitement, that stage in which rheumatic fever and constitutional sympathy exist being the more advanced of the same disease; but our treatment will naturally not be so active as when less severe symptoms exist.

On the admission of a patient into Hospital complaining of rheumatism, not accompanied by fever or other constitutional derangement, tongue clean, etc., I have been in the habit, after first ordering a warm bath, and brought the skin to act by pulv. ipec. comp. gr. xij., of administering, ℞ Vin. colchici, ♏ xx., vin. antim. ʒss., nitr. potass, gr. v., tinct. op. ♏ x. M. Capiat. haustus; quartâ quâque horâ. This I continue for two days, accompanied by milk diet; when, if the symptoms do not yield, and constitutional symptoms supervene, with fever, foul tongue, bounding pulse, thirst, and laboured breathing, I at once give, Cal. gr. ij., ant. tart. gr. ⅛, extr. hyoscyam. gr. iij. M. Ft. pil. Capiat. una quartâ quâque horâ; and allow the patient to drink freely of lemonade. I do not stop the pills until the mouth is affected, and in the meantime I have found the patient to benefit considerably; but, in the four instances before-named, notwithstanding the treatment adopted as above-stated, and the patients brought fully under the effects of the mercury, the heart-disease was apparent before the mouth became affected.

Counter-irritation has also been adopted in every case, but the abstraction of blood in this disease I have always avoided, as it always must detract from the natural powers of recovery; and it would, no doubt, be interesting to the Profession generally were accurate statistics collected to ascertain what method of treatment would be most likely to obviate or moderate the inflammatory action in the fibrous structure of the heart; such being the consequence of acute rheumatism.

Aldershot Camp.

CASES OF COLOUR-BLINDNESS.

By EDWARD BRONNER, M.D.

[Condensed from a Paper read at the German Medical Society in Paris.]

Case 1.—In April, 1851, I was present when Dr. Sichel, in Paris, extracted the crystalline lens of Marque le Danois, a French farmer, who was affected with cataract. By chance it was found, after the operation had been successfully performed, that the man was colour-blind. When he had recovered from the operation, I examined him more closely, and, as his mental faculties were not highly developed, I could only make out with difficulty what follows:—He was 60 years old, very healthy; his father had been affected with cataract, but whether with colour-blindness as well he could not say. His two children, a son and a daughter, distinguish colours with perfect accuracy. He confessed that he had never dared to buy any clothes for himself, from his inability to see colours rightly. With the exception of Yellow and Blue, he hesitated at specifying any other colour. From his arrangement of the different-coloured bundles of wools which I laid before him, it was found that he recognized Scarlet with difficulty and hesitation. Of light Blue he could but say that it was neither Brown, Green, nor Yellow. He took light Pink for Blue; of dark Pink he could not say whether it was Green, Blue, or Red; he only knew that it was not Yellow, White, or Black. Violet was Blue to him. Orange puzzled him entirely; he could give no name to it. Green, Brown, and Red were thoroughly confounded. Dark Green and Blood-red scarcely manifested to him any difference. This congenital colour-blindness has not been in the least altered or remedied after the crystalline lens had been extracted.

This case proves, in a most striking manner, the erroneousness of Trinchinetti's opinion, that a troubled state of the aqueous humour and crystalline lens is the cause of colour-blindness, which he proposed to cure by the extraction of the lens.

Case 2.—Mr. M., a learned German Chemist, who died about forty years ago, at the age of 50, was a sufferer from colour-blindness. His children, two daughters, distinguished colours perfectly well; but colour-blindness re-appeared among their offspring.

The elder daughter, Mrs. B., has three sons. The eldest and youngest distinguish colours with perfect accuracy; the latter especially, who is a painter, has a most delicate sense

of colour. But the second son, Mr. O. B., is colour-blind. He is stout, of choleric temperament; has no great talent either for music or drawing. His hair is light brown; his eyes grey, inclining to a yellowish green; his sight quick and keen. He discerns the three primitive colours, Yellow, Blue, and Red, but not the others. Violet is to him of a Blue colour. Green, Brown, and Orange puzzle him very much, so that he is never certain in his attempts to distinguish them. Dark Brown he mistakes for Black.

Mrs. R., the younger daughter of Mr. M., is sensitive to colours; so also is her husband. She has three sons, all of them more or less colour-blind.

The eldest son, Mr. L. R., of a sanguine temperament, has red hair, greyish-blue eyes, and is short-sighted. The supra-orbital region is somewhat prominent. Has no talent for music or drawing. He remembers very well that, when a boy, he never found strawberries in the wood so easily as his companions, from not being able to distinguish the colour of the berries from that of the leaves. The three primitive colours, Yellow, Blue, and Red, are distinctly seen. But there exists for him no difference between Brown and Green, nor, again, between Pink and Rose; and he often confounds certain shades of the two latter with Red. Violet appears to him as a Blue. In assorting bundles of coloured wools, he arranged some shades of Red, dark Green, and Brown into one bundle, which he believed to be Red. Dark Brown and dark Green appear to him as Black. This defect of sight has always remained stationary; and he has never tried any means to remedy it. All his five children, one boy and four girls, seem to be free from it.

Mr. C. R., the second son of Mrs. R., now about 36 years of age, has a choleric temperament, dark brown hair, and brown, keen-sighted eyes. He is neither a good musician nor draughtsman. To distinguish the red colour of strawberries from the green leaves remains as difficult a task for him to-day, as it was twenty years since. Still he discerns the three primitive colours, together with Orange. Brown and Green, however, especially the latter, are his stumbling-blocks. In selecting the several colours from a bundle of wools, he confounded Grass-green with Yellow, Bluish-green with Red or Grey. Rose-colour he distinguishes very well; but takes Violet and Pink for Blue, Grey for Red. Of his four children, one little boy of about seven years seems to have inherited his father's defect.

Mr. E. R., the third son of Mrs. R., is small, of a delicate constitution, and of a sanguine temperament. His hair is of a light brown, iris of a bluish-grey, the bottom of the eyes of a pure black. The supra-orbital region somewhat prominent, particularly towards the root of the nose. Hearing very good, but without the existence of any talent for music, or memory for melodies. Is short-sighted in a slight degree; no draughtsman, not even able to draw the plainest figure from memory. With all this, he judges of forms, and estimates symmetry with the greatest exactness, and is a connoisseur of drawings and pictures. The hours he has spent in the Louvre and Belvedere, in the galleries of Munich and Dresden, have been among his greatest delights. He has very often recognised at the first glance a Murillo, a Raphael, a Rubens, or a Rembrandt by the particular tint; while at the same time he is unable to judge of the value of a picture, in respect of the display and selection of colours, with that strictness with which he estimates its forms. The latter are more attractive to him, and for this reason he prefers historical pictures to landscapes. His memory for colours, especially for those which he cannot very clearly distinguish, is very weak. His imagination is not strong enough to represent any colour before his mind with such a vividness that he would actually perceive it. He cannot read colours (to use the expression) as others do, so as to need only to look with one glance at a vari-coloured body, in order to know all its hues; he is compelled to make them out, as it were, by spelling. But as this operation is tedious to him, he seldom attempts it, being content with the general idea of vari-coloured. This defect of sight was very early discovered by his parents, and his mother was on one occasion astonished in no slight degree, when she was sewing a scarlet dress for her god-child, at his reproaching her for giving such a dull, black dress to a young girl. He never was so fortunate as his companions in finding strawberries or violets in the fields, while, on the other hand, he found the white May flowers with the same ease as the others. He always avoided mentioning this defect to any body, concealing it by never speaking about the colours of any object of which he was not quite sure. As he knows that the fields and trees are green, that bricks are red, etc., he has no difficulty in conversing on their colours; but the same colour seen on another object he wisely refrains from mentioning.

It is only a year since he began more closely to observe himself, and the following is the result of his research:—

The Blue of the corn-flower, and the Yellow of brimstone, are the only colours which he distinguishes with exactness and decision. All other colours are more or less uncertain to him. A series of shades of Yellow or Blue always makes the right impression upon the sensorium; but he is apt to confound a certain light Yellow with light Olive-green, or light Brown. Yellow he distinguishes the best, Blue in the next degree; yet there are some light and pale shades of the latter sometimes confounded by him with a light and pale Red.

Red does not act so strongly upon his eye as Yellow and Blue; it does not seem to him such a bright colour, as it does to others. The several gradations of Red are felt as quite different colours. He cannot understand how Crimson and Blood-red can both be called Red. Blood-red and Scarlet are classed together with Green and Brown, and scarcely any difference, even in shade, is seen between Scarlet and the Brown of cinnamon. He was one day not a little alarmed, seeing a friend affected with bronchitis spit out some mucus, mixed with Spanish juice, taking the latter for blood. The red of the cheeks does not appear to be much different from the blue lips, nose, and cheeks of a person affected with cyanosis.

No apparent difference exists to him between Green and Brown. It is true, that by comparing a complete series of Greens with a similar one of Browns, he perceives dark Green as a brighter colour than the corresponding shade of Brown; while the lighter shades of Green approach much more nearly to a lighter Yellow than the light Browns do. But if one colour alone is seen, it can never be decided whether it be Green or Brown. Light Olive-green is a Yellow colour to his sight, and if he were not aware of the darker Green of some trees being the same colour as the fresh light Green of the meadow in spring, he would regard them as quite different.

Pink and Violet are perceived as Blue; but dark and light Pink do not seem to belong to the same colour at all, the former approaching more to Red, the latter to Blue. A shade between those two appears similar to a Blue of the same shade, only much less bright. Dark Violet seen along with Blue displays some difference, appearing as a bright Blue with a shade of Crimson. The lighter shades of Violet cannot be distinguished from Blue.

Lilac he knows only by name, and does not see the least difference between it and Blue. Grey is no distinct colour to him. The Grey of slates coincides with Blue or Rose; Mouse-grey with a certain Red.

He very easily succeeds in *exciting the complementary colour* of Yellow by suddenly turning his eyes to a white plane, after having for some time looked at a bright Yellow colour. The white plane rapidly turns into a brilliant Blue (probably the Violet of a sound eye). Gazing for some time upon a yellow surface, strongly illuminated by the solar rays, affects the nerves so as to produce sickness. The subjective perception of the complementary colour of Blue is excited only with great difficulty, but he is not able to give any name to it, and with the other colours the experiment entirely fails of success.

In the *Rainbow and Solar Spectrum* he distinctly sees two colours only, Yellow and Blue. The Solar Spectrum appears to him as follows:—He perceives its whole extent up to the utmost limits. But what others call Green makes upon him the impression of an impure Blue, passing over into a darker, pure Blue. This gradually becomes less bright, (Pink to the sound eye,) and turns into Yellow, which, from the darkest shade, (Red to the sound eye,) becomes increasingly bright. He remembers when a boy not to have been able to see the Northern Lights, (a somewhat rare phenomenon in his country,) at the sight of which other persons were delighted; and a short time since he could not distinctly discern any of the seven Rainbow colours, brilliantly brought out by the beams of a strong electric light.

At *candlelight* he distinguishes Pink from Blue with the utmost ease, the former giving him more the impression of a Red colour. The same takes place with Green and Brown, which at this light he ceases to confound; one of these,

moreover, seen alone could not well be specified. He seems even to observe a greater difference between Green and Blue than the sound eye does. Dark Olive-green and Sea-green give the impression of two different colours, the former being taken for Brown.

Objects seen through the Prism by candlelight are surrounded by a circle of Blue and Yellow; but large black letters on a yellow surface do not show any coloured circle. He is able to produce the complementary colours of Yellow and Blue in the same way as by daylight, only somewhat weaker.

Subjective sensations of colour.—When suddenly turning the eyes from the light of a brightly burning candle, at which he had gazed for some minutes, to a dark surface, he saw there the fiery candlelight as an after-image. This gradually became Blue, from the margin towards the centre. When quite Blue, the centre appeared Yellow for a moment only. The circumference of the Blue light then assumed another colour, of which he could not say if it were Red or Orange; and so the flame gradually vanished on the black plane. If he looked then at the white ceiling the image of the flame appeared again, but as a bright Orange or Red, (he could not say exactly which,) showing a Blue centre, which continued for a few moments, when the rest of the image had already disappeared. If at this moment he closed his eyes, he saw the image again as a bright Yellow, with a Blue centre, immediately turning into an Orange (or Red) as soon as he looked at the white ceiling again. By thus closing and opening the eyes, he could reproduce the image for several times, until it entirely disappeared. Once he thought, when his eyes were closed, he saw yet another colour, but he was unable to say whether it was Green, Red, or of any other hue.

After three months, during which time he was very anxious to remedy the defect by daily practice with different colours, and by the endeavour to analyze the several impressions made upon his sense of colour, he instituted the following experiment:—After keeping his eyes closed for some time, he gazed at the blue sky through a window consisting of sixteen panes, separated from each other by white frames. When he then shut his eyes again he distinctly saw the image of the window. Its panes appeared dark (of no distinct colour to him), while the panes were first of a colour of which he could not decide whether it was Pink, Rose, or pale Blue. But this colour rapidly changed into a bright Blue. At this period the frames remained dark in some experiments, at others they became of a lively Red (or Orange?). Gradually the panes assumed a reddish hue (perhaps Green?) darkening more and more until the image disappeared for some minutes. But it gradually came on again, the panes of a bright Red (or Orange?), the frames of a beautiful Blue (or Violet?) This gradually vanished into darkness. When he allowed some light to pass through the closed eyelids while the panes still appeared Blue, the latter instantly became Red, assuming the Blue colour again as soon as light was once more prevented from passing through the eyelids.

In this experiment the sensation of colours, passing from a pale Blue (perhaps Pink) to a pure Blue, from this to an impure, so to speak, Reddish colour (perhaps Green), and finally to Red, is analogous to the colours he sees in the spectrum.

Subjective coloured images produced by pressure.—By firmly compressing the eyelids, he is able to produce sundry subjective sensations of light and colour. He first perceives an uncertain bluish or reddish hue. This, perhaps, turns into a more lively Blue or Red, but never into what he would call a pure colour. By pressing and rubbing the closed eyelids for a few minutes he can even excite coloured irregular images. One of them almost constantly re-appears. It consists of some fiery, irregularly traced lines. Out of these, an irregular oval figure is gradually formed, inclosing another smaller one. The central oval is continually changing its size and form, sometimes being diminished to a mere point, which emits several irregular rays. Both ovals are surrounded by an Orange (or Red?) coloured border. The colour of the two ovals changes. Now they are both alike, and appear to him Reddish-blue (perhaps a kind of Red or Pink). Now they are different in colour, while the borders disappear; the inner oval being of a fiery Orange, the larger oval of the former colour. Such is the appearance of the image when the eyes are closed. If they are then suddenly opened, and directed to a white surface, the ovals are still seen by him, but of another colour. He cannot decide whether this is dark Brown, dark Green, or dark Red. The fiery border has disappeared from both ovals; the inner oval is lighter, but he does not know whether of the same colour as the outer one, or not. By alternately closing and opening his eyes, he can keep this figure before his sight for a few minutes, after which it entirely vanishes. If he looks, when opening the eye, at a dark instead of a white surface, the figure disappears directly.

These experiments prove the same uncertainty in judging the sensations of subjective colours, as he experiences with the objective ones. In both cases the optic nerve is irritated; in the one by the coloured beams of light, in the other by a more mechanical agency; and in both the sensations are quite similar. Yellow and Blue, only, are perceived with certainty. Some other colours are seen besides, an impure Blue for instance, which is probably Pink; then two other colours, of which he cannot decide whether they are Orange, or Red, or Green.

The effect of colours through stained glass, and that produced by electricity, have not been tried.

After having endeavoured for a whole year, with great assiduity, to remedy this defect with the assistance of friends, who have assisted him in the selection of colours, corrected his mistakes, etc., he believes he has made a little progress. He has now an idea of two colours which he could not distinguish before, although he is never quite certain about them. These are, the Red modified by Blue, as seen in Crimson, and a shade of Pink which he perceives as a kind of pale Blue, mingled with Red. For the rest, he has not been able to correct his sight.

In regarding the cause and seat of colour-blindness, this case necessarily suggests the exclusion of the transparent media, as well as of the colouring matter of the eye. For, all these tissues have nothing to do with the subjective colours, appearing by a mere pressure upon the closed eye, or as complementary spontaneous colours after a strong impression of coloured light. In both cases, the optic nerve undergoes certain impressions, which are conducted to the brain; and these cause sensations which are felt as perceptions of colour. It is difficult to decide whether the cause of this indistinct perception of certain colours lies in the optic nerve not being sufficiently affected by the impression, or in the distinct impression upon the nerve, having been duly conducted to the brain, not being sufficiently felt there. The absence of any memory for colours; the want of all judgment on them, even of such as are distinctly perceived; the impossibility of giving them their names, of putting them, as it were, into their right place, suggests the idea of a defective perception of the brain itself. This opinion is corroborated by the well-established fact, that congestion of the brain may cause a momentary colour-blindness, or that cerebral disease may induce it.

Bradford, Yorkshire.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

SHORT NOTICES OF HOSPITAL THERAPEUTICS.

RADICAL TREATMENT OF HYDROCELE.

A man, aged 31, has recently been under Mr. Lloyd's care, in St. Bartholomew's, on account of a hydrocele, which had been several times tapped, and on one occasion treated by the injection of iodine, with the hope of permanent cure. The latter expedient, however, had failed, the sac having refilled. Mr. Lloyd adopted a plan, which has long been a favourite with him, of introducing a little of the red precipitate into the sac. The fluid having been drawn off by a canula, large enough to allow a director to enter it, the latter instrument, oiled, and then dipped in the powder so as to carry a few grains adhering to it, was introduced and moved about in the cavity. The introduction was repeated two or three times; some inflammation followed, and a perfect cure ensued. The practice has the advantage over that by injection of not requiring any special apparatus. Mr. Lloyd believes it also to be more uniformly successful.

GLYCERINE AS A DRESSING FOR WOUNDS.

During the last six months repeated laudatory notices of the use of glycerine as a dressing to wounds and ulcers have appeared in the French journals. (a) M. Dallas, of Odessa, states, that he has employed it for several years, and in the Hôpital St. Louis, MM. Demarquay and Denonvilliers have put it to an extensive trial. They report of it, that it possesses very extraordinary virtues, causing phagedænic action to be arrested, promoting the process of healthy granulation, and inducing rapid cicatrization. It is even stated to have effected the cleaning of wounds to which citric acid, nitric acid, and the actual cautery had been applied in vain. We have lately had an opportunity of watching a trial of the remedy by Mr. Skey, in St. Bartholomew's Hospital. The first few cases in which it was resorted to appeared greatly benefitted, and Mr. Skey was induced by their result to direct its general use. His final conclusion, however, as stated in clinical remarks, has been, that the remedy possesses no peculiar virtues whatever. A considerable number of sores heal rapidly during its use, as, indeed, they would do under that of any non-irritating application which would exclude the air and prevent drying; in those, however, which have assumed an unhealthy state, and which resist the influence of other like remedies, it effects nothing whatever. A smaller series of trials by Mr. Hutchinson on patients at the Metropolitan Free Hospital, have led him to the same conclusion with Mr. Skey. Unhealthy sores dressed with it for periods of three weeks have remained precisely *in statu quo*. It is an agreeable application, causes no smarting, excludes the air, keeps the sore moist, and does not adhere to its edges, but beyond these it appears to possess no recommendations. While more expensive, it seems little, if at all, superior to olive or almond oil. It may seem difficult to reconcile the great discrepancy between foreign and English experience which these conclusions show. It might, perhaps, scarcely be deemed fair to insinuate, that on the Continent the employment of dressings which simply exclude air, and are themselves non-irritating, is not so well understood as among ourselves, and that, consequently, credit has been given to a single remedy which belongs rather to the whole class. Such, however, we suspect is, to some extent, the case. In one case, recorded by M. Petel, the source of fallacy is transparent. A woman came under his care for phagedænic stomatitis. Glycerine was applied, and *chlorate of potash given*. A very rapid cure, of course, occurred. The narration reminds one of Voltaire's assertion, that he could easily kill a flock of sheep by spells of witchcraft, provided, at the same time, he might mix a little arsenic with their food.

NEW METHOD OF TREATING PHAGEDÆNA.

Mr. Cock has recently been trying, in Guy's Hospital, a plan of treating phagedænic ulcers by constant irrigation. The method is, to have the sore well exposed, and the affected limb placed on some waterproof material; a reservoir above the bed is then filled with lukewarm water, and, by means of an elastic tube, a stream is kept continually flowing over the surface of the sore. By this means all particles of discharge, etc., are washed away as soon as formed, and the ulcer assumes the clean, pale appearance of a piece of meat which has been long soaked. In all the cases in which it has been practicable to employ the irrigation efficiently, a speedy arrest of morbid action has been secured, and the number has included several in which the disease was extensive and severe. The theory of the treatment is, that phagedænic action is a process of local contagion—the *materies morbi* by which the ulcer spreads being its own pus. Admitting this supposition—which there is every reason for doing—to be true, the object to be kept in view in curative measures is either to decompose or to remove the local virus. This end is accomplished somewhat clumsily by such remedies as the nitric acid, which, unless so freely used as not only to char up all the fluid matters, but to destroy the whole surface of the ulcer to some depth, fail to prevent a recurrence. Mr. Cock's plan of subjecting the ulcer to a perpetual washing attempts the accomplishment of the same end by a more simple and direct method. It involves no pain to the patient, and does not destroy any healthy tissues. Its one disadvantage seems to be, that, excepting on the extremities, its use would be attended with some inconvenience, from the difficulty of preventing the water from running into the patient's bed. Should, however, further trials confirm the very favourable opinion which has been formed at Guy's as to its value, these difficulties might, no doubt, be surmounted by the contrivance of suitable apparatus. The directions as to temperature of the water are, that it should be as warm as comfortable to the feelings of the patient; and, as preventive of smell, Mr. Cock advises the addition of a small quantity of the chloride of lime or of soda.

(a) See *Gazette Medicale*, Oct. 27, 1855; *Gazette des Hôpitaux*, Dec. 10; and *Gazette des Hôpitaux*, Dec. 15.

THE PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

TAUNTON AND SOMERSET HOSPITAL.

DISLOCATION OF THE FEMUR—REDUCTION BY THE FLEXION PLAN AFTER FAILURE OF THE ORDINARY METHOD.

(Communicated by Mr. R. P. JONES, House-Surgeon.)

[The subjoined narrative gives another good illustration of the superior efficiency of the modern plan of reducing dislocations of the femur. We are glad to be able to add it to the already considerable series of cases which we have recently recorded in support of so important an improvement in practice.]

E. Bryer, a strong athletic woman, seven months advanced in pregnancy, was admitted, under the care of Mr. Welch, July 28th, eight hours after having fallen from a cherry tree, at a height of about sixteen feet. She was taken up insensible, and a surgeon was sent for. He found that two or more ribs were broken, and that the thigh was dislocated. After some fruitless attempts to reduce the dislocation, the patient was removed to the hospital, a distance of about three miles.

On admission, the right lower limb was found extended, and away from its fellow; it was two inches longer than the left, and the foot was slightly turned inwards. The pain in the hip was excruciating. Having put her under the full influence of chloroform, another attempt was made in the usual way to reduce it. This was also unsuccessful, but the thigh was now somewhat more easily flexed on the abdomen. She was subsequently again put under the full influence of chloroform, and Mr. Welch now succeeded in reducing the dislocation in the following manner:—The thigh was flexed on the abdomen as far as possible, and the upper end of the femur was pulled outwards, the counter-force being applied to the knee, which rested on the right shoulder of the operator. At the same time, the limb was gently rotated outwards by an assistant. There was no effect produced in this extreme flexed position; but in gradually bringing the limb down while the same forces were continued, the head of the bone slipped into its socket with an audible snap, when the thigh had been brought to a semi-flexed condition. The whole procedure did not occupy above two or three minutes. A bandage was applied to keep the knees together, and she was then removed to bed. The chest had been bandaged before admission. With the exception of a slight attack of peritonitis, the woman did very well, and was discharged cured on the 16th of August.

She went her full period of pregnancy, and she has suffered no ill effects from her accident since her discharge from the hospital.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE HALF-YEAR ENDING DECEMBER, 1855.

The subjoined Report comprises the following Hospitals:—Addenbrooke's (Cambridge), the Bradford Infirmary, the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing

Infirmary, the Nottingham General, the Sheffield General, the South Staffordshire (Wolverhampton), the Staffordshire General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn), and the York County Hospital.

LITHOTOMY.

Number of cases, 24; recovered, 18; died, 6.

Case 1.—A boy, aged 5, in poor health, under the care of Mr. Tapp, in the Dorset Hospital. A long oval stone, weighing five drachms and a-half, was removed by the usual operation. The symptoms had been severe. Recovered. *Case* 2.—A boy, aged 3, in good health, under Mr. Poppleton's care, in the Bradford Hospital. He had suffered from stone for eighteen months, the symptoms having been severe. Recovered. *Case* 3.—A boy, aged 2, under the care of Mr. Page, in the Cumberland Infirmary. Usual operation. Recovery. *Case* 4.—A delicate lad, aged 16, under Mr. Kendall's care, in the West Norfolk Hospital. His health was improved by treatment before it was thought well to perform the operation. A lithic acid stone, weighing five drachms, was removed, and a good recovery followed. *Case* 5.—A boy, aged 5, under Mr. Hey's care, in the York County Hospital. Usual operation. Recovery. *Case* 6.—A boy, aged 14, under Mr. Husband's care, in the York County Hospital. He had been operated on in another Hospital a year before. Mr. Husband performed the ordinary lateral incisions in the left side, and removed a calculus the size of a large walnut. Recovered. *Case* 7.—A delicate boy, aged 3, under care in Addenbrooke's Hospital, having suffered symptoms of stone for three months. A calculus, weighing a drachm, and consisting of lithates, was removed. Recovered. *Case* 8.—A boy, aged 8, under care in the Kent and Canterbury Hospital, having suffered from symptoms of stone for about a year. A mulberry calculus, weighing half-an-ounce, was removed. Recovered. *Case* 9.—A healthy boy, aged 7, under the care of Mr. Tapp, in the Dorset County Hospital. A mulberry stone, the size of a marble, was removed. Recovery. *Case* 10—A boy, aged 14, under the care of Mr. Jackson, in the Sheffield Infirmary. He had suffered very severely from symptoms of stone, and required a preparatory treatment. A mulberry calculus, weighing an ounce and a-half, and of very tuberculated surface, was removed. For several days following the operation his life was despaired of, on account of peritoneal inflammation; but he subsequently made a good recovery. *Case* 11.—A boy, aged 2, under the care of Mr. Fearn, in the Derbyshire Infirmary. A lithic acid stone, the size of a kidney bean, was removed. Recovery. *Case* 12.—A man, aged 58, under the care of Mr. Gregory, in the Sheffield Hospital, having suffered from stone for some years. A mulberry calculus, weighing half-an-ounce, was removed. Recovered. *Case* 13.—A man, aged 39, under the care of Mr. Fearn, in the Derby Infirmary. In consequence of an injury to the spine, he had for nine years suffered from partial paraplegia, with some loss of control over the bladder. His urethra was much diseased, and he had been in the habit of passing a gutta-percha catheter for himself. Seven weeks before admission he had broken his instrument in the bladder, and the retained fragments had caused all the symptoms of stone. The usual lithotomy operation was performed, but it was rendered difficult by the circumstance that the staff could not be made to pass further than the membranous urethra. Two portions of catheter, coated with phosphatic deposit, were removed, and a large quantity of loose phosphates washed away by injection. Six weeks after the operation the patient left the Hospital, the wound not having then quite closed. The state of the urethra was not much improved. *Case* 14.—A farm labourer, aged 46, in good health, under the care of Mr. Coleman, in the South Staffordshire Hospital, having suffered from stone for five years. A lithic acid calculus, the size of a pigeon's egg, was removed. Considerable hæmorrhage, from a deep-seated vessel, followed, and the wound had to be plugged. The man recovered well, but at the time he left the Hospital a small fistulous opening remained. *Case* 15.—A delicate boy, aged 6, under the care of Mr. Coleman, in the South Staffordshire Hospital, having suffered from stone for six months. A lithic acid calculus, the size of a Spanish nut, was removed. Recovered. *Case* 16.—A delicate boy, aged 6, under the care of Mr. Sayle, in the Lynn Hospital, having suffered from stone for two years. A lithic acid calculus, weighing six drachms, was removed. Recovered. *Case* 17.—A healthy boy, aged 13, under the care of Mr. Kendall, in the Lynn Hospital, having suffered from stone for three years. A lithic acid stone, weighing two drachms, was removed. Peritonitis followed, but was subdued by treatment. Recovered. *Case* 18.—A man, aged 75, formerly very strong, but now reduced by long and extreme suffering, was admitted, under the care of Mr. Kendall, into the Lynn Hospital. He was unable to rise from his bed, and had most acute and constant pain in the bladder, with incontinence of urine. Six years ago he had been cut for stone, and for a second time three years later, on each occasion the calculus being successfully removed. In spite of his almost hopeless state, Mr. Kendall determined, at his urgent entreaties, to perform a third operation. A soft phosphatic concretion, with a small lithic acid nucleus, was removed. No urgent symptoms followed, and on the fifteenth day the urine began to dribble from the penis. The wound has since healed, but the man continues in a very feeble state, and it is doubtful whether he will ever regain his health. *Case* 19.—An unhealthy boy, aged 12, under care in Addenbrooke's Hospital. Symptoms of stone had existed from an uncertain date, and there was no history of other disease; there was, however, a fulness above the pubes which could not be easily explained. The usual operation was performed, and a lithic acid stone, weighing three drachms, removed. Vomiting set in soon afterwards, and continued up to the time of death; there was also some tenderness in the lower part of the abdomen; the usual symptoms of peritonitis being, however, ill marked. Death occurred on the eighth day. At the autopsy, there was found chronic thickening of the lower tract of the rectum, and an abscess of considerable size existed between the bowel and the sacrum. There was peritonitis in the pelvic region, but not generally. *Case* 20.—A lad, aged 17, in good health, under the care of Dr. Nimmo, in the Dundee Royal Infirmary, having suffered from stone for many years. The usual operation was performed. On the second day symptoms of acute peritonitis set in, and death occurred in the evening. No autopsy. *Case* 21.—A boy, aged 4, under the care of Mr. Paget, in the Leicester Infirmary, having suffered from stone for three years. A calculus, about the size of a bean, was removed. Death, from peritonitis, occurred three days afterwards. *Case* 22.—A man, aged 48, under the care of Mr. Paget, in the Leicester Infirmary, having suffered from stone for one year. A calculus, nearly the size of a hen's egg, was removed. For some time after the operation the man did well; but he subsequently sank into a low state, the wound never healed, and death took place about two months after the operation. At the autopsy there was found serous effusion into the left pleura, and a few spots of lymph over the surface of the left lung. There were flakes of lymph on the intestines, chiefly on the left side of the abdomen, and a large collection of pus in the sheath of the psoas muscle. The substance of both the recti muscles was infiltrated with pus. The left kidney was much enlarged, and contained several encysted collections of calculous matter. The tenderness on pressure and pain in left side of the abdomen had existed for only a week before death. *Case* 23.—A boy, aged 4, under the care of Mr. Samuel Hey, in the Leeds Infirmary. He was in good health, but had suffered from stone for some time. A small calculus composed of lithates was removed by the usual operation. Considerable bleeding followed, and plugging was required. Severe diarrhœa set in the same afternoon, and was followed by convulsions. Death on the third day. The autopsy showed infiltration of urine behind the bladder. *Case* 24.—A man, aged 56, under care in Addenbrooke's Hospital, on account of an encysted calculus. He had previously four times recovered from lithotomy, and on the last occasion it was ascertained that an encysted stone was left behind, it being found impracticable after a persevering trial to remove it. Six months after the operation, symptoms of stone having again supervened, it was determined to perform a recto-urethral operation, in the hope of being able better to reach the encysted stone. By means of a bistoury, the opening into the cyst was enlarged, and after some difficulty, a stone, the size of a walnut, was dislodged. Death, preceded by symptoms of peritonitis, took place on the third day. At the autopsy, a quantity of dirty-brown, serous fluid, was found in the peritoneal sac. There was purulent infiltration behind, and to the left of the bladder, and the cellular tissue about the cœcum was in softened, and almost putrid, state. No laceration of the peritonæum could be found. The cyst, which had contained the

stone, was just above the orifice of the right ureter, and at its furthest part was a considerable opening, communicating with the infiltrated tissues. The bladder was scarcely thickened, and the prostate was healthy.

(To be continued next week.)

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 103.—Obscure Scrotal Disease in Infants.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Rather more than twelve months ago I delivered one of my patients of her first child; it was a male. About three weeks after birth a red blush appeared on the scrotum, which went on from bad to worse, until one afternoon, while I was engaged some miles in the country, the child got so much worse that the mother was prevailed upon to show it to another physician here, who at once incised the part, (this I did not approve of,) and the child bled to death. Some few months ago I again delivered this lady of a male child, and about the fourth week after a red blush, as in the former case, appeared on the scrotum. This child was placed in the hands of a surgeon who had not seen the former case, and he treated by applying nit. arg. gr. xij. in aq. ʒj. twice daily to the inflamed part, and gave the mother some pills to take, composition not known. The child died.

Now, I crave your attention and advice. Should this lady a third time become pregnant, we have some reason to dread the result. I am young in practice, and so ask you if anything can be done to avert that which we dread. If so, what is it? Mercury, tinct. mur. ferri, or what? Again, How is the medicine to be given? I suppose it should be given to both parents. And, lastly, when should it be administered, before or after conception? By giving me your advice on this matter you will confer a favour. I am, &c. A. B. C.

Falkirk, March 17, 1856.

ANSWERS.

To No. 101.—Excision of the Knee-joint.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Your correspondents, Mr. Hutchinson and Mr. Vitalis, seem not to be aware that Mr. Butcher, of Dublin, has already published the most valuable part of their suggestions regarding excision of the knee—I mean that which relates to division of the hamstring tendons, which Mr. Butcher warmly advocates, in preference to the plan of cutting off an additional piece of bone, should there be any difficulty of bringing the leg straight; and likewise with regard to apparatus for enabling the wound to be dressed without disturbance. Mr. Butcher's treatise *exhausts the subject*, as the cant phrase is, and may be had of Hodges and Smith, Dublin.

I am, &c.

March 31, 1856. "A Man about the Hospitals."

To No. 98.—Theory of Catalysis.

Sir,—I have been in hope of seeing some information on the subject of catalytic action laid before your readers, in reply to the letter of your ingenious correspondent, "Alpha," in your number for March 22.

I think, however, that your correspondent has overstated part of his argument, and has understated another part.

He has overstated it, when he refers to the action of mercury as catalytic. It is true, that it enters the body as metallic mercury, but, in all probability, it enters into some chemical combination with some of the elements of the blood, and leaves the body similarly combined. (By the by, can anyone tell us when and how mercury *is* eliminated?) And the fact of its entering into combination deprives it of the title of catalytic, according to your own definition of that title. Of course, the only change that a simple body can undergo is combination; it is beside the mark at present to speak of allotropy.

Your correspondent, however, understates his case, when he speaks of the operations of the nervous system. He refers to cases of disease produced by contact; he would have made a much stronger case had he referred to the operations of the nervous system in health: to the whole field of sensation, and, in particular, to the reflex functions of the spinal cord. Here we see true instances of material changes, instances of movement and secretion induced by the contact of bodies, which not only undergo no change, but are totally external to the body on which they act.

However, I will no longer trespass on ground that has already been opened by another, but proceed myself to point out two other instances in which contact seems to determine the place and degree of chemical change.

I will state, then, that contact of substances influences the place at which water is converted into steam, and the temperature at which it is so converted.

Let anyone make the experiment of boiling some water in a glass vessel. He will soon see that the steam is not generated indifferently in every part of the water, nor all over the surface of the containing vessel; but first and chiefly at the situation of any crack, or scratch, or unevenness of surface, where the steam will be given off in copious streams, as if it issued from a single point. If there be put into the vessel any lump of metal, it will be seen that the steam is most copiously evolved from the angles and projections.

In many cases, liquids (urine mixed with potass, for example), instead of boiling quietly, get a disagreeable habit of bumping, as it is called; that is, they do not give off their steam quietly, but all of a sudden an explosion of steam takes place at the bottom of the vessel, which drives the whole contents out, perchance into the eyes of the operator. The surest way of preventing this is to put into the vessel angular pieces of metal or crystal, which undergo no alteration themselves, but have great influence upon the conversion of the water into steam. Where there is delay in the conversion of water into steam, there is, I need scarcely say, an increase of temperature required.

The same thing happens in the decomposition of water by zinc and sulphuric acid. It is not everywhere, but at certain parts, that the streams of hydrogen are given off.

I am, &c. Beta.

Medical Times & Gazette.

SATURDAY, APRIL 12.

THE METROPOLITAN WORKHOUSES.

We have just received a copy of the Report upon the Accommodation in St. Pancras Workhouse, presented by Dr. Bence Jones to both Houses of Parliament by command of Her Majesty; and some other publications upon the accommodation afforded to the Sick Poor in the London Workhouses generally, are lying before us.

The condition of St. Pancras Workhouse, although not, perhaps, worse than that of many other similar establishments, has obtained an unenviable notoriety from a number of adventitious circumstances. In the first place, the Resident Medical Officer appears to have been a man of energy, sense, and feeling, and more anxious to do his duty to the sick poor under his charge than to curry favour with the Vestry. Hence, he did not allow the abominations passing under his eyes to escape without notice, but he made repeated efforts to bring the state of the Workhouse under the supervision of the authorities, with a view to its immediate melioration. He might, no doubt, have remonstrated in vain for many months or even years; but, as good luck would have it, a contested election for Vestrymen was at hand about the period of the Medical Officer's remonstrances, and the party which was out, and which was attempting to get in, readily seized upon the state of the Workhouse as a ground of attack upon the parties in power. By some means, too, the reports upon the sanitary condition of the Workhouse

found their way into many of the Sunday and some of the daily newspapers, and the "Horrors of St. Pancras" formed a striking feature in the journalistic announcements, and were the more acceptable as they formed the battle-cry of the Outs against the Ins. The latter, of course, denied the accusations made against them; denounced the reports as wilful falsehoods or gross exaggerations; declared that the whole story about the treatment of the paupers was a mere electioneering trick; and took speedy measures to "get rid" of their Medical Officer, and to supply his place with some one more congenial to their own views.

As the management of St. Pancras Workhouse now became a subject of general interest, in consequence of the great publicity afforded by the newspapers, people began to open their eyes, and to ask whether there was such a thing as a Poor-Law Board in existence, and if so, whether it tolerated the abominations which were described, or, at least, whether it had taken the pains to inquire if such abominations really existed. These questions were at last so loudly urged that the Poor-Law Board was aroused from its apathy, and ventured, although at first very timidly, to ask of the Vestry some explanation as to the truth of the reports. An Inspector from that Board examined the state of the Workhouse, and eventually Dr. Bence Jones was sent upon the same errand, with directions to make a Report upon the accommodation afforded to the inmates. Our readers are aware, that Dr. Bence Jones has confirmed, in every respect, the statements originally made by us as to the overcrowding, the want of classification, the defective ventilation, and the other inconveniences of this now too-celebrated establishment.

"The women's wards," writes Dr. Bence Jones, "consist of an upper and lower room, communicating by an open staircase. In these two rooms eighty, and sometimes more, persons sleep. Being desirous to determine, chemically, the impurity of the air, I went early to the Workhouse. Directions had been given that the windows were not to be opened. On entering, two windows were open; and when the inmates were asked why they had neglected the orders given, *they said they should be stifled if the windows were not opened*. On the following morning I went still earlier. I found seventy women, and ten children. Omitting the children, the average space was 164 cubic feet per person. The windows were said not to have been opened. The air, however, was by no means so offensive as I had expected, from the account I had received. I collected the air, and, on examination, it contained considerably more than one per cent. of carbonic acid (1·14 per cent.)"

"In the men's casual ward I saw in the evening, along the greater part of each side of the room, a wooden, sloping frame, on which were placed some cocoa-nut fibre bags, some blankets, and rugs. About twenty-five adult men were expected to sleep that night on these planks. One Medical man, Mr. Waldegrave, told me *he had seen ten men lying naked as close as possible on one of the planks*."

"On two occasions, I collected some air when all the beds had been occupied from two to three hours. *There were two and three quarters per cent. of carbonic acid in one experiment, and above two per cent. in the other*."

Our readers need scarcely be reminded that the normal proportion of carbonic acid in the atmosphere is about 1 part in 2000.

Continuing his interesting researches, Dr. Bence Jones goes on to state:—

"Late one evening, in one room I found fifty men. The room smelt of tobacco: and, on examination, the air contained above one-and-a-half per cent. of carbonic acid. In the other, which was oftener cleared, and then the windows and doors opened, 150 are sometimes collected. Mr. Waldegrave stated, that he had frequently been called to men who had fainted in the rooms, when the wards were most full, in the winter. He said that, occasionally, the rooms are so full, that there is no possibility of sitting down, and many are obliged to stay in the passages, or to go to bed."

"I might have particularized other rooms,—as the women's eruption ward, the men's infirm ward, the women's syphilitic ward, and, generally, I may say, that I found no room in any part of the house, except in the new building, tolerably ventilated; and in some of the rooms in the new building, and in many rooms in the older buildings, *no attempt has been made to prevent the entrance of foul air from privies, sinks, drains, urinals, and foul patients*."

Comment upon these quotations is quite unnecessary; and we entirely agree with Dr. Bence Jones in characterizing the whole arrangements as "horrible."

From another pamphlet lying before us we quote the following descriptions of certain portions of the Workhouse of St. Mary, Islington:—

"The place called 'the Regions,' from its situation, is partly under ground, very dark, has one small window, no ventilation, and is very damp, the wood-work crumbling from mildew. Yet this place was devoted to the reception of the paupers, and, in consequence of all the other wards being quite full, the paupers were, and are, kept there. The dimensions of this room are 19½ feet by 17, and 7½ feet high; and seven persons constantly sleep there, giving 355 cubic feet to each person."

"The tramp sheds have hardly any ventilation at all, and only one window in each, and this window is usually closed. The dimensions of the sheds are, that on the female side, 18½ feet long by 17 broad, and 12½ feet high, and there are 21 compartments; thus giving to each person, supposing 21 to be present, 187 cubic feet; but, as each shed during the winter was frequently occupied by more than 40 persons, *the number of cubic feet would be only about* 93."

The consequences may be anticipated.

"In these sheds, 58 cases of illness were attended in a period of about three months, the diseases being chiefly typhus fever and diarrhœa. From the entire absence of any accommodation in the Workhouse, these miserable wretches were treated, necessarily, in the sheds, where they remained for several days, *lying at first upon foul straw, infested by vermin and rats, and afterwards actually lying steeped in solution of chloride of lime, to destroy contagion*. When the condition of these unfortunate beings was represented, the answer was that they were 'only tramps;' and in the written evidence of the Master, he admits that there were 15 cases of typhus fever in the spring of the year, 'but,' says he '8 of them were tramps.'"

In another pamphlet before us, entitled the "Hospital System of London," the writer divides the Hospitals into the Charity Hospitals—such as St. Bartholomew's, Guy's, and other endowed or unendowed Institutions—and the Workhouse Hospitals, or those which are supported by a compulsory rate, and are under the control of the Poor-law Board. It is there shown that, while the Charity Hospitals are maintained in a style often of princely magnificence, the Workhouse Hospitals are, on the contrary, conducted, in general, with the utmost meanness and cruelty; the sole object of the Guardians of the Poor being, too often, only to save the Poor-rates. In reference to the Workhouse Hospitals the writer remarks:—

"No annual report is published containing the statistics of the maladies observed in those establishments. The 3389 beds are there filled to overflowing, with their interesting pathological studies; but they are as if they existed not; for, with the exception of the Medical Officers, the Guardians, and occasionally a curious parishioner, *who pokes his unwelcome nose into the wards, to sniff out some deficiencies on which to found a charge of neglect at the next Vestry Meeting*,—nobody knows, nobody seems to care for knowing, anything about the patients treated in the Workhouse Hospitals."

These remarks, however bitter, are only too true; but the revelations which have lately been made of Workhouse mismanagement will stimulate curiosity to inquire into the economy of these Institutions; and even the pauper, or the sick tramp, may one day feel that he is at last recognised as a human being, and that he is entitled to treatment not much inferior to that which is awarded to the convicted felon in our modern gaols.

THE WEEK.

It will be seen, by reference to our advertising columns, that the movement originating with Mr. Griffin, on behalf of the Poor-law Medical Officers, is about to result in a General Meeting in London, in furtherance of the objects so long contemplated. We need scarcely state that the time is now ripe for the intended demonstration, and that no better period than the present could be chosen, when the metropolis is full and the Parliament is sitting. We are happy to find that the cause is espoused by those old and tried friends of the Profession,—Dr. Hodgkin, in whom science and philanthropy have always been combined, and Mr. C. F. J. Lord, whose efforts in behalf of the Union Surgeons have already secured for him universal esteem. We cannot for a moment doubt that, under such auspices, and with so righteous a cause, the Union Surgeons will obtain a signal triumph, and will emancipate themselves from the miserable thraldom under which they have so long been oppressed. But let us inculeate Union and Moderation, without which the best designs may be ruined, and the common interests betrayed into the hands of the enemy.

By letters from Renkioi of the 26th of March, we learn that the results obtained during the winter months have been highly satisfactory. This is the more encouraging, as it was during the cold and wet season that the only doubt could be entertained as to the eligibility of the site for wooden buildings. During the month of February, 226 patients had been admitted, 243 had been discharged for duty, 30 were invalided and sent to England, 16 died, and 451 remained in Hospital on the 29th of February. Since the opening of the Establishment in October, to the end of February, 1301 military patients had been admitted; of whom 640 had been discharged to duty, and sent to the front, 170 were invalided and sent to England, and 40 had died. Thus the per-eentage was 49·19 to duty, 13·07 invalided, 34·67 remaining, and only 3·07 died. Considering the number of bad eases of fever, frostbite, dysentery, etc., which had been treated, the proportion of deaths appears very small, indeed much smaller than the mortality in our London Hospitals. The progress of the buildings was proceeding rapidly, accommodation for 1500 patients being complete, and huts for 2000 being roofed in.

In the course of a trial which took place a few days since at Norwich, Mr. Justice Wightman remarked upon the great danger to society which resulted from the illegal practice of persons acting as attorneys without possessing the legal qualification for doing so. The case showed, the Judge remarked, "that, under pretext of assisting ignorant people when involved in litigation, the prisoner illegally practised as an attorney, and plunged his victims into great and unnecessary costs." Now, if a quack doctor, "under pretext of assisting ignorant people," when overtaken by disease, "plunged his victims into great and unneccssary eosts," and ruined their health or destroyed their lives into the bargain, would such conduct call forth the righteous indignation of the judicial bench? No; the offender in that case would be converted into a hero, and the jury would be told that in this free country any person had a right to practise medicine, however stringent the prohibition may be in respect to law. In other words, no man is allowed, under heavy penalties, to meddle with the *property* of the community, but any blockhead or scoundrel may safely trifle with their health or their lives!

The Judicial Committee of the Privy Council have been engaged for some days in hearing arguments for and against the will of the late Mr. Dyce Sombre, which has been already set aside in a lower Court on the ground of the insanity of the testator. It will be remembered that by this will, Mr. Dyce Sombre excludes his wife and his family, and leaves the bulk of his property to the East India Company. To our apprehensions, the proofs recently adduced of Mr. Dyce Sombre's insanity are clear enough; but inasmuch as the enormous sum of about seven millions of money is said to be at stake, and as most of the leading barristers are retained on each side with extravagant fees, it cannot surprise anyone that the litigation is still carried on. We are constrained to admit that the case is one which does not appeal to any strong feeling in any of its aspects, and there is really no objection against part of the money being thrown away among the Lawyers, more especially as the Doctors have already had some of the pickings. It is also consoling to reflect that, notwithstanding the large fees paid to the lawyers, the bulk of the property will not be seriously injured; unlike the case of the unfortunate Mrs. Cumming, where the property was wholly swallowed up by the litigation, which ceased only when there was nothing left to contend about. If we understand the arguments correctly in the case of Mr. Dyce Sombre, the insanity of that gentleman is no longer doubted, and the only question is, as to the payment of costs, which the Court below has decreed shall not be paid out of the estate.

A gigantic scheme for the sewage of the Southern side of the Metropolis, has just been presented by Mr. Bazalgette, to the Metropolitan Board of Works. The plan consists in the construction of two vast sewers, which will meet at Deptford, and will thence flow on through the Plumstead marshes, till they reach the river at a point opposite Barking creek. The works connected with this great undertaking will cost nearly a million of money. The *Times*, in commenting upon the proposal, strongly remarks upon the contemplated absurdity of discharging the whole of the accumulated sewage into the waters of the river, and thence into the ocean, at the very time when we are sending ships to distant countries for manure. Whatever may be the engineering skill displayed in this plan, we hope that its concoctors will study a little of the principles of chemistry before they wantonly throw away an incalculable amount of material, by saving which they might multiply to an indefinite extent the productiveness of the soil, and repay in no small degree the enormous expenses which will be necessarily incurred. If such a waste should be finally approved, we may then indeed exclaim that Sir Humphrey Davy and Liebig have studied and written in vain, and that the principles of Agricultural Chemistry have made very little impression upon the minds of the present generation.

The Medical Reform Bill, as might be anticipated from the proceedings last week, makes very little progress, and Mr. Headlam has expressed his consent to its being referred to a Select Committee. The discussion on Wednesday last, in which the Government offered, on certain conditions, to take charge of the Bill, was abruptly closed by the Speaker, in consequence of the necessity of proceeding to other business, and the adjournment took place *sine die*. Lord Elcho has brought forward a measure of Medical Reform, in which the rights of the Universities are to be preserved. We do not anticipate much success for Lord Elcho's scheme.

Royal Institution.—At the General Monthly Meeting, held April 7, the Hon. Mr. Justice Crampton, Montague Chambers, Esq., M.P., Q.C., Charles Palmer, Esq., and Thomas Wilson, Esq., were *elected* Members; and the Rev. C. Fynes Clinton, B. F. Duppa, Graham M. Esmeade, F. P. B. Martin, and Alexander Murray, were *admitted* Members.

REVIEWS.

Descriptive and Illustrated Catalogue of the Histological Series contained in the Museum of the Royal College of Surgeons of England. Vol. I. Elementary Tissues of Vegetables and Animals. London: 1850. 4to. Pp. 305. 18 Plates. Vol. II. Structure of the Skeleton of Vertebrate Animals. 1855. 4to. Pp. 248. 18 Plates.

Among the recent aids to discovery in Medical science none has proved of such immense importance as the application of the microscope to physiology, pathology, organic chemistry, and Medical jurisprudence. Enabling the observer to see what would otherwise be invisible, to detect peculiarities of form and arrangement of the minute structures of the tissues and organs, permitting the detection and distinction in many cases of the products of the normal and abnormal actions of these organs, the use of this instrument has opened up a new field of inquiry, the cultivation of which must greatly modify our physiological and pathological views, and thus indirectly contribute to the alleviation or removal of disease.

As might naturally be expected, very numerous papers, essays, and treatises have appeared on so interesting and important a subject. The work now under review is one of the most important of the contributions to histological science; and although under the uninviting title of the catalogue of a museum, has been so highly appreciated by histologists, that a reprint of the first volume was demanded long before the appearance of the second.

In our review of the first volume, soon after its appearance, we called the attention of our readers to the munificence of the Council of the College of Surgeons, under whose auspices and at whose expense this elaborate work has been produced by Professor Quekett, and to the extreme accuracy of the delineations of structure with which it is adorned. Although strictly what it professes to be—a catalogue of the preparations in the histological department of the Museum, it is not one of those bare lists of preparations so often published under that title, but a careful and accurate description of each individual specimen. The Author, following the admirable example set before him by the eminent founder of the Museum, John Hunter, has arranged the histological museum on the general plan of the physiological department, commencing with the histological elements, and tracing their combinations throughout the entire series of plants and animals.

The first volume of the "Histological Catalogue" contains, as we stated in our former review, descriptions and illustrations of the elementary structures of vegetables, and their combinations in the tissues of plants; the histological elements of animal tissues, and their peculiarities in different classes. Taking the hard parts, or skeleton of animals as the basis or framework, to which all other parts have especial reference, the author commenced his description with the spicula of the sponge, and carried it onwards in the first volume to the highest and invertebrate animals,—the cephalopods,—heading each division and subdivision with a description of the general character of the skeleton throughout the class or order, the particular specimens of which he is about to describe; and in this way the Catalogue becomes, in reality, a treatise on the subject, rather than a mere catalogue.

The second volume completes the skeleton, by tracing its structure and development through the vertebrata from fishes, through reptiles, birds, and mammalia, to its highest and most perfect form in man. Throughout the vertebrata, bone exhibits the same general structure, differing only in the several classes and orders in the relative size, forms, and arrangements of its parts; but these differences are sufficient for a practised eye to distinguish whether a particular bone is that of a fish, a reptile, a bird, or a mammal. To Professor Quekett belongs the merit of so extended a survey of the structure of bone as to have enabled him to point out the distinctions in the different classes, so as to enable others to determine the class of animals to which a given specimen of bone may belong. This is especially important in the case of fossil bones, where, perhaps, the fragment found is so imperfect as to be undistinguishable by its form or processes. Even in recent animals this method of distinguishing the class of the animal is, in some cases, of considerable value.

Suppose, for example, that an animal has been discovered of such equivocal character in its other structures, that comparative anatomists are divided in opinion as to its real position in the scale of creation; that, while some assert it to be a fish, and create a new and peculiar order for its especial reception—others as confidently assert it to be a reptile; and thus the unfortunate animal is unconsciously the cause of many bitter altercations. Here the microscope, by adding a new distinctive character, comes to our aid, and affords valuable assistance. Such an animal is the *Lepidosiren annectans*, classed by Professor Owen among the fishes, but placed by Melville, Gulliver, and the author among the batrachian reptiles, on account of the form and size of its blood discs, and the arrangement of the lacunæ of its bones, which are decidedly reptilian in character.

The collection of preparations of bones of the vertebrata in the histological museum, described in this volume, is, perhaps, the largest in existence, numbering not less than 945, of which 745 were made during the progress of the work; and the 18 plates illustrate 432 selected specimens. The illustrations are all drawn by means of the camera lucida, and the magnifying power employed in each case is stated, so that a comparison may be readily instituted.

One of the most interesting problems concerning the structure of bone is, the mode of development of the lacunæ and canaliculi. This question is now answered, and it has been determined by recent observation that the lacunæ are, in fact, the spaces left by the altered nuclei of certain cells, called lacunal cells by Tomes and De Morgan. Figures are given in plate xviii., of the different stages of the formation of the lacunæ. The nucleus of each lacunal cell, which is originally circular and granular, takes on a stellate form; the cell-wall is absorbed, and disappears; the matrix as well as the cell-space is hardened by deposit of granular phosphate and carbonate of lime, while the body of the nucleus and its stellate projections, which ultimately communicate with each other, form hollow cavities, the lacunæ and canaliculi, capable of transmitting nutritive fluids from the blood-vessels occupying the Haversian canals to the extra-vascular portions of the bone.

In this brief notice of a most valuable contribution to histological science, we have touched lightly on a few of the numerous points of interest in the volume, which demands the strong encomiums we felt it right to bestow in our former notice of the first volume. We doubt not, that this volume will be found as interesting to histologists as the first, which it fully equals in clearness of description, accuracy of classification, and beauty of illustration. After what we have said, it would be a work of supererogation to recommend this work to the careful study of all interested in microscopic science.

An Appeal in behalf of the Royal Medical Benevolent College. By T. Herbert Barker, M.D. Pp. 16. Second Edition. Bedford. 1856.

Dr. Herbert Barker, who has long been a warm and consistent friend of the Medical Benevolent College, again appeals to the public in its behalf, by publishing a second edition of his pamphlet. He also takes occasion to impress upon the minds of his readers the inestimable benefits to be obtained by the practice of Life Assurance, by which much of the misery which befals our widows and children might be averted. Although there are probably very few who would question this very evident proposition, yet, unfortunately, there are too many who practically neglect the warnings of experience, and into the hands of such persons we hope that Dr. Barker's short but impressive appeal may fall.

An Account of a Mode of Treating the Small-Pox, which entirely prevents Disfigurement, and renders the Disease comparatively Harmless. By Henry George, M.R.C.S.L. 4th Edition, 12mo. Pp. 116. London: 1856.

Twenty years ago Mr. George's panacea was calamine powder,—it is now powder of camphor.

Countless have been the means proposed for preventing disfigurement by small-pox; but experience has shown that these have failed in the worst cases—those in which such protection is most needed; any apparent benefit having probably resulted from a modification in the disease itself.

The amount of eruption depends upon the severity of the disease,—the extent of disfigurement depends upon the quantity of pustules. Vaccination modifies the severity of

the disease, deprives it of its severity, and diminishes the number of pustules :—*ergo*, effieient and careful vaccination is the only trustworthy preventive of disfigurement by small-pox.

The Adulteration of Food and Drinks. By William Alexander, M.D., etc. Pamphlet. 8vo. Pp. 32. London. 1856.

This pamphlet consists simply of the substance of a lecture delivered at a literary and scientific institution, and is drawn from Dr. Hassall's and other works on adulteration of food.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

RAPID TREATMENT OF ITCH.

By MM. DUSARD and PILLON.

The remedy here mentioned is the chloride of sulphur dissolved in sulphuret of carbon. The chloride, easily obtained by the action of chlorine on sulphur, was at first employed in its pure state in minute quantities, but this not acting promptly enough, the sulphuret of carbon was, after various trials, chosen as the best vehicle. Twelve grammes of chloride are dissolved in 100 of the sulphuret, this being the utmost quantity required for an adult. The application should be made in a well-ventilated room, removing all copper articles liable to tarnish. The patient is placed quite naked on a stool, and his head is covered with an immense cone made of strong paper, opened only at top, so as to proteet the face from the effect of the sulphurcous vapours which exhale. The whole surface is rapidly smeared over with the mixture, by means of a large badger's-hair-brush or charpie, applying it especially to the parts where the acari most resort. Any Hospital attendant can do this. A general sense of heat, without painful smarting, immediately follows, and the patient is thus cured in five minutes. The itching ceases as if by magic. After thirty-six hours a bath is taken, the patient being recommended to abstain from washing his hands and neck until then ; and baths on alternate days for a week, to complete the treatment. Complications that may have arisen may, however, require treatment ; but they soon subside. When eczema predominates, some gelatinous or starehy baths are employed, and porrigo is usually relieved by alkaline baths. When the complications are very aggravated, they should be somewhat modified before the treatment is commenced, or this may cause pain. After disappearing, the itching may return in five or six days, but it is of a different kind, dependent on persistent porrigo, and relievable by alkaline baths.—*L' Union Méd.* 1855. No. CIX.

RELATIONS BETWEEN HERPETIC, NERVOUS, AND CATARRHAL AFFECTIONS.

By M. DELIOUX.

From his clinieal observations and researches, M. Delioux concludes :—1st. When herpes is observed as a critical determination during a severe disease, it is best, whether its charaeter be notoriously favourable or doubtful, to abandon it to a spontaneous cure, merely watching over and moderating the local inflammation, so as to prevent ulceration. For this purpose emollients may suffice, but they have the ill effect of rendering the vesicles too soft, and favouring ulceration ; fatty bodies are preferable, adding a little opium when the eruption is painful. M. Cazenove's practice is excellent, viz., dusting the surface with starch-powder, and covering it with oiled paper. 2nd. When the herpes possesses no critical character, or is only local, the same applications are proper ; but if we wish to expedite the cure, we should employ alum or metallic lotions, and, especially cauterize with the nitrate of silver. This best prevents the formation of the discoloured spots that may long continue to disfigure. The discoloration caused by the nitrate itself may at any time be removed by using a concentrated solution of iodide of potassium. 3rd. When the herpes is complicated by an obvious catarrhal eondition, and espeeially when this implieates the digestive organs, evacuant treatment is indicated, as it is also when the herpes is developed without actual catarrh, both under the influence of a medical constitution of that character, and especially when neuralgic pains coincide with the eruption. 4th. Zona, consisting ordinarily of three morbid elements, neuralgia, catarrh, and a specific inflammation of the skin, furnishes the triple indication of purgatives, sedative lotions, and the nitrate of silver. Although, as the vesicular eruption has here the characters of a critical phenomenon, cauterization would seem, *à priori*, calculated to disturb this crisis, without necessarily resolving all the disease, the nervous element often persisting ; yet experience proves the advantage of this abortive treatment. 5. In the frequent and intimate relations which exist between the affections of the nervous centres and disturbances of the digestive organs, purgatives timely administered may sometimes ward off an attack upon the brain that is imminent, and laxatives continued for a certain period may maintain this diversion. This is well known ; but what it is particularly desired to call attention to is, the no less frequent coincidence of neuralgia with secretory lesions of the digestive organs ; an obstinate neuralgia often yielding to purgatives, even when there is no sign of any partieipation of these organs. Not less important relations prevail, in certain cases, between lesions of the cerebro-spinal system and herpetic affections ; but no therapeutical principle of equal value is as yet deducible. 7. In herpetic connected with catarrhal affections, purgatives are indicated in the majority of cases. Emetics, to which simple catarrhal affections often yield, are powerless in herpetic affections complicated with catarrh, less efficacious than purgatives in catarrhal neuralgias, and would be injurious in affections of the nervous centres, giving rise to disturbances of the digestive organs.

Gazette Medicale, No. XXXIX.

EXCERPTA MINORA.

Acetate of Lead in Hypertrophy of the Heart.—M. Brachet speaks of the great utility of this mode of treatment. In several cases, the amelioration produced is only temporary ; but in hypertrophy that is recent and not much advanced, the success is remarkable. He prescribes 30 grains of the acetate, and 15 of extract of digitalis, made into twenty pills. He begins with one night and morning, increasing the number every few days, until three are taken at each dose.

L' Union Méd. No. C.

Tar in the Typhoid State and Typhoid Fever.—M. Chapelle relates that during an epidemic of typhoid fever he found this substanee of marked utility. It is given either as a tisane or lavement. For the tisane, about 60 grammes of liquid tar are plaeed in a vessel holding a quart, which is then filled with hot water. After some hours, the patient commences drinking it, and as he does so more water is added, so that the original quantity of tar suffices for the whole cure. The lavement is formed by beating up an egg with a tablespoonful of tar, and adding it to three-fourths of a quart of warm water—this serving for two lavements. The patient should drink as much of the tisane as possible, and when he is disgusted with it, several lavements should be given daily. When diarrhœa is present, it becomes checked. In two or three days, the typhoid state is overeome. Typhoid fever of mean intensity, termed "mueous fever," requires about double that time, while the essential phenomena of typhoid fever, properly so called, yield in eight or ten days ; both the tisane and the lavements being then employed.

L' Union Méd. No. CIII.

Prevention of Pitting in Small-pox.—M. Homolle recommends a mixture formed of tr. benzoin 20, tannin 1, a droplet of which is to be applied to each pustule by means of a pencil.—*L' Union Méd.* No. CXXXV.

Purpura Hæmorrhagica.—M. Homolle has frequently prescribed, with great advantage, six or eight pills in the twenty-four hours, composed of sulph. of iron, ext. rhatan., āā 1½ grain. —*Ibid.*

Resolvent Ointment.—M. Guèpin strongly recommends the following ointment in scrofulous swellings :—Lard, 30 parts ; sal ammoniae, 2 ; iodide of lead, 1. In rheumatism, as met with among the labouring classes, sailors, etc., he has found the following very useful :—Lard, 30 parts ; carbon. of ammon., 2 to 5 ; calomel, 5 ; ext. of opium, 3 ; ext hyosey., 6.—*Bull. de Thérap.*

GENERAL CORRESPONDENCE.

CASE OF HYDROPHOBIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—I send you the particulars of the recent case of hydrophobia, which occurred here under my care at the Birkenhead Hospital. To Mr. Marshall, our excellent House-Surgeon, I am much indebted for valuable assistance in recording them. I am, etc.

C. O. Baylis, M.D., M.R.C.S.

51, Hamilton-square, Birkenhead, January 1856.

Samuel Evans, aged 28; stone-mason; single; Welsh; tall and powerful-looking; eyes blue; hair sandy-red. Admitted Wednesday, December 5, 1855, at 9·30 a.m. States that on Friday morning last he felt what he calls rheumatic pains in his left shoulder and arm, also, but less severe, about his right shoulder and chest; he did not make much of them at the time, and was able to remain at his work until Saturday afternoon, when he accompanied some friends to have a glass of ale, and then, for the first time, experienced a difficulty in swallowing; the attempt made him feel sick, and he shook all over; on again trying, he once or twice vomited. On the following day (Sunday) he felt worse—could not bear the sight of water, and whenever he attempted to swallow any, it threw him into a state of violent excitement. On that day he had a glass of ale for dinner, and again in the evening, both of which he got down, but with difficulty; he had also a glass of rum, which he drank raw; since then he has remained much in the same state, but a sense of constriction and dryness in the throat, which he had before felt, has increased; he feels worn out and ill from the want of sleep, having scarcely had any for the last three nights; when interrogated, says he never had any wounds of consequence on his skin, but on examination, two small cicatrices of three lines in length each, are found about an inch above the left wrist; they look turgid and are of a livid colour; one is in front of the ulna, the other is behind, and an inch and a-half apart; these, he now remembers, resulted from the bite of a fox-hound at the Knutsford race-course about two months ago; they gave him little pain or uneasiness at the time, but did not completely heal over for six weeks (two weeks ago); says he thinks there was nothing the matter with the dog, though he bit several people on the same day; he also says the dog was taken to the kennels at Delamere Forest the same night, where he worried two very valuable pups, but he never heard anything more about it (a).

On admission, he is found to have pain over his chest and in his arms, but more especially in his left, and to be unable to grasp objects with any degree of force with the left hand, or quite to close it; has much pain and constriction of throat, which are greatly aggravated by the sight of fluids in motion, if his attention be at all directed to them, and they are increased almost to agony if he attempts to swallow any of them; says that for two days past the sound of water running through the tap in a neighbouring apartment at his lodgings, has caused a sense of choking; on offering him a glass of water, he averts his head, says he cannot face it, and when urged to swallow some, takes it in his hand, trembles violently while conveying it to his lips, succeeds by a violent effort to gulp down a mouthful or two, quickly returns the vessel to arm's length, where spasmodic jerks throw portions out on the floor; he starts to his feet, rushes across the room, draws two or three long stridulous inspirations, trembles violently for some minutes, and then gradually settles down to his former state, but appears ashamed at such an exhibition of himself; even talking of fluids causes him to shudder. When left undisturbed he spits out a thick viscid saliva. His throat seems but little if at all congested; but the extreme sensibility prevents any lengthened examination. The sublingual veins are dark and full; chest and abdominal viscera seem healthy; heart-sounds are normal; pulse 100, small and weak. Bowels have been opened this morning by a calomel and jalap purge. Tongue rather white and dryish; urine (he says) is high-coloured. His whole appearance is that of anxiety. His temper is very irritable when addressing his friends; he does so in a half-angry tone; attributes his illness to cold, and has no idea of any danger; admits having drunk hard; had a bout at it three weeks ago, but since then has been rather moderate; has had attacks of delirium tremens, but none during the last two months.

Consultation at 11 a.m.—Ordered to be put to bed, and have calomel 2 gr., opium 2 gr., in a pill every two hours. 4 p.m.—Has swallowed three doses of the medicine; he thinks he has been more composed, and that he has slept a little, but the nurse reports the frequent occurrence of suffocative paroxysms, especially if she approaches the bed abruptly, or agitates the air in his neighbourhood; that when left undisturbed he seems uneasy and wanders in his mind. On approaching more nearly to him, he jumped up and begged us to stand off, as he could not bear our breaths; blowing towards him brings on suffocative paroxysms and springing out of bed. His other symptoms have all increased. Has taken some boiled rice, but would not attempt fluids.

8 p.m.—Has taken 6 doses of the calomel and opium. Our entrance into the ward caused an instant and severe paroxysm, which he attributes to the agitation of the air, and the proximity of our breaths; says he would remain quiet if left alone; complains more of his dryness of throat; his paroxysms are now induced by the slightest causes—approaching him abruptly—talking of swallowing liquids—movements of the air—breathing at or rudely handling him—will cause them.

Respiration seems free when at rest; occasionally he jumps up on a sudden, and makes violent efforts to spit out a thick frothy saliva; pain in left arm continues; has a feeling of constriction in lower part of chest; is now less under control in the paroxysms; pulse is weaker and more rapid; ordered a tobacco enema immediately; the wet sheet to be applied surrounded with blankets; and chloroform to be made use of to assist in their application, or its effects on the symptoms to be specially tested.

11 p.m.—Enema still retained with the effect of slightly soothing him, but his excitement when approached or disturbed, has been so violent as to preclude the use of the wet sheet in the treatment; he now complains of the proximity of the fire, and has to be removed to the further end of the ward; as he is rapidly becoming more excitable, and his paroxysms more frequent, chloroform to the extent of 20 ounces by weight in the hour was administered, but it was impossible to get him under its full influence, partly from his own nervous fear of being made insensible, and partly from his incessant motion, and the recurring suffocative paroxysms; he is now altogether worse, and at times a complete maniac: though rarely for many minutes at once; sometimes retching and hawking with all his might, apparently as if he would relieve his throat by it; skin of trunk perspiring and warm; that of extremities clammy and cold; pulse 140; is now almost uncontrollable; can with difficulty be kept on his bed, or even within the room; he has often put himself in a position to commit furious violence on those around: but as yet he succumbs to persuasion and management; expresses the greatest horror of a strait-waistcoat, having recognized one kept in readiness for him, and threatens to murder anyone attempting to apply it, declaring it would suffocate him to death; ordered quinine and sulphate of iron, of each 5 grains, morphia $\frac{1}{4}$ grain, made up with conserve into a bolus every hour.

4 a.m. Thursday.—Has just swallowed, after chewing it, and only by a most determined effort, his sixth dose of the medicine; after the fourth, he said his head felt enlarged, and that he had a singing in the ears; in all respects his symptoms are intensely aggravated, has on several occasions passed his urine involuntarily, though sometimes consciously; he is giving signs of nervous exhaustion, there are languid intervals in his excitement, occasional failure of strength, tremblings, feeble, variable, and rapid pulse—now often above 140; his intellect remains clear, but latterly impatience and excessive restlessness prevent his attention fixing itself; the power exercised over him is entirely moral, and one is strikingly impressed with the conviction that the addition of physical constraint would destroy it, and render him both more suffering and more dangerous. The aspect of the ward just now is melancholy, and the scene a fearful one; the attendants worn out with their anxious watching and their incessant exertions; a brother horror-struck at so much of agony, pas-

(a) It has since been ascertained that the dog was destroyed, after showing unequivocal symptoms of madness. Of two other dogs which he bit, one died soon after in a convulsion, and the other was afterwards destroyed. Inquiries also show that the fact of Evans being bitten, is remembered in the neighbourhood; but have failed in ascertaining that any one else met a similar catastrophe.

sion, affliction; keen observers there are about him who gloomily scan symptoms they would only be too glad to relieve; a divine too is at hand, whose words of peace and comfort can find no solid entrance into the miserable whirlpool of the frenzied mind; in the midst of all, the wretched sufferer himself, shifting wildly on his couch, with starting eyes, haggard countenance, his coverings in disorder around, incessantly snuffling, hawking and ejecting his saliva in the most determined manner; now throwing himself backwards, declaring that he will die, then springing up again insisting that he will live; anon, accusing those around of stifling him, and in a moment after, in piteous accents, loading them with blessings for their kindness and attention; sometimes fiercely calling for drink, he will make desperate but unavailing efforts to moisten his parched throat; often will he jump to his feet and seem about to annihilate all around, and then for a moment stagger in pitiable weakness, too truly showing the exhaustion going on within, never remaining for one minute the same, but rapidly, fiercely, and incessantly changing his emotions, positions, and struggles. No living organism could stand it long; nature was rapidly sinking. At five o'clock an asphyxial paroxysm supervened, he gradually stiffened backwards, his eyes became fixed and staring, his lips and countenance became first blue and then almost black, while an occasional slight convulsive motion stole over the features; his pulse imperceptible, the extremities cold and clammy; in a minute or two, however, the spasm relaxed; presently a sigh marked the commencement of breathing, his pulse established its presence, and he again spoke, raved, and jumped up as before, to be seized by other such attacks, each one leaving him weaker than before; until at length, after seven or eight of these alternations, he finally succumbed at 8 p.m., just 22½ hours after his admission.

Sectio Cadaveris, twenty-seven hours after death.—The subject is 6 feet in height, extremely muscular, head well developed, countenance indicative of suffering, lips livid and turgid, limbs stiff, scrotum almost black, dorsum and depending parts uniformly discoloured, lateral parts of neck partially so; on laying open the spinal canal and the dura mater, the longitudinal vessels of cord exhibit a dark red colour, and are more pronounced as they approach the first lumbar, beyond which they again become less noticeable. Cervical and upper part of dorsal portion of nervous matter appear normal, but softening with a pinky hue is evident from about the eighth dorsal to the first lumbar; lower down it resumes its normal appearance; the dura mater of this portion contains about eight or ten drachms of fluid.

On removing the calvarium, the meningeal and other veins are observed as if beautifully injected, and the veins on the surface of the cerebrum present the same appearance; the arachnoid is transparent, and contains but little fluid; the base of the brain presents no unusual appearance; on slicing portions of the hemispheres from above downwards, the grey matter in a very striking degree appears in excess, and is of a darker colour than usual; sections of the anterior lobes throughout present numerous points from which ooze out a thinnish blood of a dusky red; those of the posterior and middle show fewer of these points; the ventricles contain but little serum; choroid plexus darkish, but otherwise natural.

The trachea, larynx, œsophagus, tongue, and major part of the pharynx were removed; the lining mucous membrane of the epiglottis, larynx, and trachea, together with that of the pharynx, down to a level of the arytænoid cartilages, is of a dark red, approaching to a port-wine, colour; no particular mucous or other deposit is observable; this redness is traceable down to the terminations of the first right, and left bronchi, but does not extend to the smaller tubes, which appear quite healthy; the mucous membrane of the posterior aspect of the larynx, below the arytænoid line, is whitish and natural; the right lung is strongly adherent to its lateral posterior and inferior walls; its whole apex is engorged with dark venous blood; a greyish cyst, the size of a bean, and some minute ones, are found there; similar black patches exist principally in the anterior parts of the left lung, and its whole upper part is black and engorged, like the apex of the right; where not of dark appearance, both lungs are of a dusky red, or of hue of liver; portions of every part cut out float freely in water, and have the usual crepitating feel. The heart is quite healthy; a few drachms of fluid blood only are found in the right ventricle; kidneys, except in relative size, normal; liver firm, and of a slaty colour throughout; stomach natural, no contents; bowels in several parts of their extent show dark stains, and in them is found a dark inky chyme to the extent of 8 or 10 ounces; no contents in colon; bladder empty.

The specific gravity of nervous matter, as determined by Mr. Russell, is as follows:—

White matter of brain . .	10·34
Grey ,, ,, . .	10·27
Pons varolii	10·27
Softened portion of spinal cord	10·27

A portion of the reddened and of the pale mucous membrane was placed under the microscope by Dr. Schofield, with the following results:—

Inner mucous membrane of epiglottis and trachea showed passive congestion, and comparatively few clusters of transparent mucous globules.

White mucous membrane below the line of the arytænoid cartilages from the posterior part of the larynx showed no congestion, and a larger quantity of the transparent mucous globules.

Remarks.—In treating this terrible malady, we have either to destroy the poison in the blood, or to counteract its effects on the nervous system; empiricism or accident may give us a remedy for the former indication; rational treatment, especially with a more perfect knowledge of the disease, may lead us to the second. In the interest of the latter, calomel and opium not appearing to arrest the symptoms, the soothing effects of the wet sheet, alternated by the tonic effects of cold sponging, etc., seemed to present this advantage over powerful medicaments, that they would not exhaust the nervous system they were given to relieve, and that if they sustained it at all, they could be continued with proper care for a length of time beyond which this disease, like many others, might finally exhaust itself.

LEUCHÆMIA OF VIRCHOW.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a letter which you did me the favour to insert in the *Medical Times and Gazette* for March 29, I endeavoured to place in their proper light the relative claims of Virchow and Bennett, as to the discovery of the morbid condition, Leuchæmia.

Your correspondent, "L. O.," while he admits that Virchow was the first to explain the pathological signification of the disease, yet claims for Dr. Bennett the discovery, on the grounds that his case, which occurred in 1845, and the appearances in which he attributed to pus in the blood, preceded the observations of Virchow; observing that the fact was discovered by Bennett, and that Virchow only "gave a more correct theory of its production." But, Sir, I would suggest that in science there are more false facts than false theories; and, unfortunately for Dr. Bennett, the facts which he described were erroneous. Without any wish to enter into a needless discussion as to the identity of pus and white-blood corpuscles, I would respectfully remind your readers that white corpuscles had been recognized in the blood and described long before Dr. Bennett's observations in 1845. Dr. Bennett failed to recognize the corpuscles which he found as white corpuscles, but, on the contrary, enumerated various reasons to disprove their identity with these.

To ascribe to Dr. Bennett, under the circumstances, the merit of the discovery of Leuchæmia, would be totally at variance with all precedents in the history of science. Dr. Bright's discovery of the disease which bears his name, alluded to by L. O., will not bear a moment's comparison with Dr. Bennett's discovery of *suppuration* of the blood. Dr. Bright's discovery consisted in demonstrating the existence of a morbid condition of the kidney, *in connexion with albuminuria*. This great fact still remains undisputed, although subsequent research may have shown that one form of Bright's disease is due to fatty degeneration. The following is a case more to the point:—Thirty years ago, a geologist discovered a fossil remain, which he described as the root of a plant. Several years after, another geologist, examining the same specimen, made out that it was the bone of an animal, and, from this observation, was led to make further investigations in the district, which led to the discovery of other animal remains, having a most important bearing on the geology of the country. Who, I would ask, was the real discover in this

case, the mere finder of the original specimen, or he who recognized its true nature?

But supposing, for a moment, that Dr. Bennett's observations do give to him the priority of discovery over Virchow, unfortunately for Dr. Bennett again, he was anticipated in these observations by Drs. Craigie and John Reid.

Dr. Craigie's case of enlarged spleen occurred in 1841, three or four years before that of Dr. Bennett. In this case the blood was examined by the celebrated Dr. John Reid, and was found to contain "globules of purulent matter and lymph." As regards the source of these globules, Dr. Craigie wrote, "If these did not come from the spleen, it is impossible to see whence they did come;" and again, "It appears, in short, to have been the only organ from which these particles could have proceeded." Dr. Bennett's patient, who died March 15, 1845, was, at first, under Dr. Craigie's care, who at once recognized the resemblance of the symptoms to those of his own case of 1841, and who stated that, long before the man's death, he "was well assured that the internal pathological state must be the same." Though Dr. Craigie did not publish his case till after the occurrence of Dr. Bennett's, (both were published at the same time,) it is plain that he clearly recognized the connexion between a changed condition of the blood, (containing pus,) and a diseased condition of the spleen (hypertrophy). What more did Dr. Bennett in 1845? Thus, adopting "L. O.'s" own line of argument, Dr. Bennett has no claim whatever to the discovery of Leuchæmia.

The name given to the disease we agree with "L. O." in considering of secondary importance. I can see nothing, however, objectionable in the name Leuchæmia, given to it by its discoverer. It implies the simple fact that, the instrument of observation—the microscope—being in all cases the same, the blood in this disease is whiter than under ordinary circumstances. At all events, the name proposed by Dr. Bennett is no improvement. It is not only inelegant and cacophonous, but it clashes with the recognized laws of etymology. Moreover, as the whole doctrine of cells is, in a measure, hypothetical, and may be disproved by the advance of science, the term, "Leucocythæmia" may be liable to the objection that it involves an hypothesis, the employment of which is always objectionable in scientific nomenclature.

I have no intention to continue this correspondence. My sole object has been to lay the facts of the case fairly before the Profession. By those acquainted with the facts I have never heard but one opinion entertained as to whom is due the merit of the discovery of Leuchæmia. "L. O." is the only exception, and from the close resemblance of the sophistry of his arguments to that displayed by Dr. Bennett in advocating his own claims, it seems not impossible that "L. O." may be but the instrument of a more interested party.

I conclude by merely repeating the statement made in my last, that the best refutation of Dr. Bennett's claims will be found in his own answer to Professor Kölliker's letter, published in the *Edinburgh Monthly Journal of Medical Science* for October, 1854.

I am, &c.
Charles Murchison, M.D., M.R.C.P.L.,
Demonstrator of Anatomy St. Mary's Hospital Medical School.
21, Upper Seymour-street, Portman-square.
April 8, 1856.

GRADUATES IN MEDICINE.—A QUERY.

[To the Editor of the Medical Times and Gazette.]

Sir,—In last week's *Observer* a string of windy paragraphs, headed "Medical Legislation," commences with these words:—"On Tuesday, four deputations of Medical men, consisting of Dr. O'Connor, of Upper Montague-street," etc., "had each an interview with Sir George Grey and Mr. Cowper, M.P., President of the Board of Health." We are afterwards informed, that Drs. O'Connor, Leet, and Maclean represented "the first deputation," which was from "graduates in Medicine." The speeches of Drs. O'Connor and Leet, the champions of "the graduates in Medicine," occupy fifty lines of the article, while the sayings of the three other deputations are compressed into twenty-three lines.

So much for the facts, as they met my eye in the *Observer*. I now wish you to tell me publicly, and for the benefit of all whom it may concern, whether Drs. O'Connor, Leet, and Maclean represented the "gradutes in Medicine" upon the occasion referred to, by the same right that the "three tailors of Tooley-street" styled themselves, "We, the people of England"? Unless you can answer this question in the affirmative, the "graduates in Medicine" must henceforth be regarded as a "very rum lot." I am, &c.

London, April 9, 1856. Erin-go-bragh.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 25, 1856.

Cæsar Hawkins, Esq., President, in the Chair.

ON A CASE OF A YOUNG WOMAN IN WHOM THE MAIN ARTERIES OF BOTH UPPER EXTREMITIES AND OF THE LEFT SIDE OF THE NECK WERE THROUGHOUT COMPLETELY OBLITERATED.

By WILLIAM S. SAVORY, F.R.C.S.
Tutor and Demonstrator of Anatomy at St. Bartholomew's Hospital, Surgeon to the Royal General Dispensary.
(Communicated by Mr. STANLEY.)

A. M. W——, aged twenty-two, was admitted into St. Bartholomew's Hospital on November 27, 1854. No pulse could then be detected in any part of either arm. There was feeble pulsation in the right carotid; in the left, doubtful. A harsh systolic bruit was audible over the top of the sternum, which disappeared on tracing it downwards, and a feebler one was heard in the course of the right common carotid. She complained of general debility, of headache, vertigo, and obscure pains in various parts. She had been delicate ever since she was a child. There was satisfactory evidence to show that the pulse had ceased to beat for some years past. There was no distinct history of any previous attack to which her present condition could be referred. She remained in the hospital until she died—a period of thirteen months. During this time her strength gradually passed away. The sight of the left eye began to fail, and at length was nearly lost; an ulcer formed on the cornea, which yielded to tonic treatment. Subsequently, ulceration commenced in the integuments over the left parietal eminence, and, resisting all remedies, gradually extended, until the bone, and ultimately a portion of the brain, were destroyed. During the last few weeks of her life she was much distressed by impaired and disordered motion and sensation in the right side.

After death, the following condition of the arteries was revealed:—

The whole of the arteria innominata was much thickened, and it required considerable pressure to approximate its walls. The lining membrane was pale and smooth, but dull and opaque. The internal coat separated with the slightest force from the middle, and was almost as thick as the other two coats together. The middle and external coats were denser than natural, and slightly thickened. Owing to this morbid state of the tunics, a section of the vessel presented a remarkable appearance. The distinction between the coats was strikingly obvious. When the internal coat was stripped off from the middle, in a great part of the vessel irregular patches of an opaque yellowish deposit came off upon the outer surface of the inner coat, but some remained upon the inner surface of the middle. This deposit, to minute examination, presented all the characters of consolidated lymph intimately blended with the arterial tissues. It was probably in process of degeneration, for here and there many small globules of an oily nature could be detected. This morbid change extended into the right carotid and commencement of the subclavian artery. In the whole of the former vessel the same change, although to a less extent, was apparent: it was contracted and much thickened; there was no clot in the interior; the inner surface was not reddened. About an inch or less from their origin, the right subclavian, the left carotid, and the left subclavian arteries became suddenly contracted to one-fourth or one-fifth of their natural size. This change extended throughout these vessels; through the axillary, brachial, radial, and ulnar arte-

ries on both sides, and the left external carotid artery. The contracted canal in their interior was completely blocked up and obliterated by a fibrous cord, which extended with scarcely any interruption throughout their entire length. Thus all the main arteries of both upper extremities and of the left side of the neck were reduced to solid cords. Other morbid appearances, of less moment, were described in the paper. In his remarks upon the case the author observed that, from its history, the progress of the disease had probably been gradual, and unaccompanied by any acute or violent symptoms. He believes that the symptoms observed during life might almost all be referred to a deficient supply of blood to those parts of the body to which the obliterated arteries were distributed. The author then remarked upon the objection which the facts of this case opposed to Rokitansky's views on the subject, and discussed the question at some length. Lastly, he referred to the origin of the fibrous cord which filled up the interior of the contracted vessels. He believed it to be the remains of the blood which had coagulated in the canal, and not an exudation from the arterial tunics; and concluded by giving the grounds upon which this opinion was founded.

The President said, he had seen some cases in which pulsation in some of the larger arteries had been lost for a time, and again restored. Some change had taken place in these vessels different from that which obtained in the case under discussion.

Mr. Fergusson remarked, that the case before them showed that a person might have obliteration of a large number of important vessels, and yet live after. The pathological history of the case was highly interesting, yet he thought the author had hardly done sufficient justice to the first portion of the case by the deductions he had drawn from it. He had entered into a minute detail of the symptoms presented day by day; but he (Mr. Fergusson) did not see any necessary relation between the pathological conditions found and the peculiar symptoms that had existed for weeks and months. He thought all these symptoms must be familiar to Surgeons as existing without any of that change discoverable in Mr. Savory's case. The account of the post-mortem appearances was of great excellence and value, but very little attempt had been made to explore the relations to the symptoms presented during life; indeed, he doubted whether the author was quite correct in his physiology. He had, for instance, regarded the obliteration of the artery in the neck as the cause of the development of necrosis in a portion of the cranium, the subsequent ulceration of the dura mater spreading to the substance of the brain; but ulceration of the scalp and exfoliation of bone took place irrespective of obliteration of the main artery. It was not clear that the destruction of tissue was due to this cause; that change, however, had been seen without it. He felt disposed to question the accuracy of the author's views regarding the spread of the disease from the surface to the brain, especially as the circulation to the brain was supplied from such a different source. He considered the structural disease of the brain as coincident and not dependent on the same cause as the other. He concluded by expressing the high opinion he entertained of the paper, but suggested that minute and tedious details might be left out with advantage in such communications.

The President inquired if any member could explain the restoration of the pulsation and circulation in an artery after they had been suspended for years. He alluded to the case of a gentleman who had lost all trace of circulation in one upper extremity for a year, and nearly of both lower extremities. There was no mortification, but congestion and shrivelling of the limb. Eventually, the circulation was restored. The obliteration, he said, could not have been the result of a coagulum; on what did it depend, then? He would ask Mr. Fergusson if he had seen ulceration of the brain consequent upon disease spreading from the bone.

Mr. Fergusson observed that he had; but it was the result of a local cause, as pressure, and did not spring from obliteration of the carotid, or other artery, as in Mr. Savory's case.

Mr. Savory, in answer to the objections raised against his views, said that he had connected the symptoms during life with the *post-mortem* appearances observed as far as he could, or dare; and he believed he was correct in attributing the loss of nervous power, and the destruction of certain parts, to the obliteration of the vessel or its branches, which directly supplied the affected part. He thought the deductions he had drawn relative to the spread of the disease were quite consistent with correct pathology.

ON MR. LISTON'S METHOD OF HOLDING THE KNIFE IN LITHOTOMY.

By WILLIAM FERGUSSON, Esq., F.R.S.
Professor of Surgery in King's College, etc.

The object of the author of this paper was to draw attention to what he considered a remarkable error which had gradually crept on the illustration of this operation, as portrayed in the works of Miller, Pirrie, Erichsen, and even that of Liston himself. The author contended that Mr. Liston cut with the knife underhand, and not overhand, as has been represented in all the works just named. He (Mr. Fergusson) accounted for this mistake by supposing that Mr. Liston's artist, while intent upon the anatomy of the parts, and the position of the point of the knife, had considered the attitude of the hand as of minor importance. Thus, that Mr. Liston had actually misrepresented his own operation; and that his pupils, while professing to describe it, had taken his representation as the model, and so perpetuated an error which in time might possibly lead to much misapprehension, if not to evil consequences. The paper was accompanied by excellent diagrams, representing, on a large scale, the illustrations from the works alluded to, as well as from the author's own work; and contained many passages illustrative of the great manual dexterity of the late Mr. Liston, and highly complimentary to that Surgeon.

Mr. Erichsen conceived that the Society was indebted to Mr. Fergusson for bringing the subject of his paper under its notice. Every one who had performed the lateral operation of lithotomy knew that its success depended mainly on an attention to minor details, as the position of the patient, etc. There did not appear to be any absolute certainty as to the exact mode in which Mr. Liston held the knife in lithotomy when he was making the deeper incisions; some who had witnessed him operating, believing that he held it in one way, and some in another. The different changes of position might well escape the attention of the bystander, who was lost in admiration at the wonderful dexterity of the operator. He thought, however, that Mr. Liston had laid down a certain principle with respect to the position of the knife, but his practice had changed it according to the circumstances presenting themselves during the operation. If Mr. Fergusson were right, it was curious that Mr. Liston's diagrams in University College, the plates in his work on "Practical Surgery" and in his Lectures in the *Lancet*, should be all wrong, because in each of these delineations the knife was above the hand. He (Mr. Erichsen) said, that in the first incision Mr. Liston held the knife in the manner described by Mr. Fergusson, and cut downwards; in the second incision, Mr. Liston used the knife as a gorget, and pushed it forward to the groove of the staff, and withdrew it in such a way as to avoid a downward cut. So forcible was this movement, that Mr. Liston always broke the knife in lithotomy by "jobbing" it, as it were, into the groove of the staff. This was best effected, perhaps, by less experienced Surgeons, by holding the knife underhanded; but this he did not think Mr. Liston invariably did, but suited the position of the knife to the necessities of each case.

The President observed that, in a superficial perinæum, the knife might be introduced underhanded; but, in a deep perinæum, overhanded, with the greatest advantage.

Mr. Fergusson said he had seen Mr. Liston operate at least forty times for lithotomy, but never saw him change the position of his hand in any one instance. Mr. Liston had known of the misrepresentation of the position of the knife in the illustrations alluded to, but had not the opportunity, or, at least, did not take means to correct it. He stated this on the best authority.

Mr. Ashton remarked that he had several times seen Mr. Liston operate, and he always held the knife in the way depicted by Mr. Fergusson.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Saturday, March 22, 1856.

Dr. Chowne, President, in the Chair.

Mr. Rogers Harrison exhibited the heart of a patient, aged 74, who, though apparently healthy, died very suddenly,

having previously only complained of a slight pain, occasioned, as was supposed, by dyspepsia. At the examination, twenty-six hours after death, the body was quite flexible, and there was not the slightest distortion of the countenance. The brain and lungs perfectly healthy, but the ascending and descending portions of the aorta were studded with calcareous or bony deposits, and a cartilaginous pouch was formed at the apex of the heart; but there were no appearances which to his mind satisfactorily accounted for the extreme suddenness of the death.

Dr. Gibb suggested that death might have been caused by fatty degeneration of the heart, which organ, when filled with blood, by any sudden emotion, would not have the power to contract sufficiently to expel it.

Mr. Rogers Harrison thought, if fatty degeneration had been the cause of death, there would have been some symptoms of it during life.

Mr. Hird said he observed that the muscular structure of the heart was completely changed; indeed, in the left ventricle, there was scarcely a trace of true muscular fibre, and he could readily conceive that when the heart was over-distended it would be unable to force the blood into the aorta. He had often seen hearts less diseased, which, by over-distension, had produced sudden death.

Mr. Henry Smith exhibited the larynx and trachea of a boy six years old, who had died rapidly from inflammatory croup. He saw the patient in conjunction with Dr. Maurice Davis only about an hour before death. The child was then suffering in the most extreme degree from obstructed breathing, the dyspnœa being as great as could be supposed consistent with life; nevertheless, the face was pale, there was not any blueness of the lips or turgescence of countenance; the pulse was feeble and suppressed. Tracheotomy was recommended as a last chance, but the mother would not accede. On *post-mortem* examination the lungs were found to be healthy, except a patch of congestion here and there. On carefully examining the heart and great vessels, a large quantity of dark coagulated blood escaped on section of the latter. In the arch of the aorta was a small fibrinous clot, and filling up the space between the right ventricle and auricle was another much larger. On examining the windpipe the lower part of the larynx and upper part of the trachea was lined with so dense a false membrane, that on pouring water on to the superior aperture of the larynx it only came away from the lower orifice by drops. Mr. Smith appealed to the Fellows as to whether there was not sufficient disease in the windpipe to kill the boy, without reference to the concretion of the heart, and whether this latter was not much more likely to be the result of the slow process of dying than the cause of death, as inferred in some such cases by Dr. Richardson. Tracheotomy done early would have given a chance of life, as the upper part of the air passage was the part mainly diseased, and the lungs were sound.

Dr. Hare said that clots were very frequently found in the heart, being peculiar, not to one kind of disease, but to one kind of dying.

Dr. Routh read a paper on

FÆCAL FERMENTATION IN SOLUTION OR SUSPENSION IN WATER.

After passing an eulogium on Dr. Snow for his zeal in the pursuit of this branch of inquiry, Dr. Routh stated that water, under some circumstances, emitted an unusual quantity of oxygen. In some cases this was due to animalculæ, in others to plants. In choleraic periods, from the large quantity of animal life present, it was evident that it contained an excess of oxygen, although research on this point had been entirely omitted. How far this undue development was connected with the chemical rays of light, he did not know. Emanations were sometimes impossible, and always very small in quantity at a low temperature, or even in moderate temperature, when the air was very dry and the barometer very high. In these circumstances the absorption by water of choleraic and other poisons of like kind was more possible, and, from the greater quantity of oxygen contained, fermentation in it was more easy. In cold countries, such as Moscow and St. Petersburg, to talk of emanations at zero was absurd. In these cases, owing to exposure, cold, and distance, the water drunk was not got from the river, but the snow in the neighbourhood, often of emptied slops, was taken and melted down, and thus contaminated water drunk. Dr. Routh then entered upon the subject of cholera, giving the three instances of Newcastle, Lambeth, and Golden-square, in which it had been proved to demonstration that the disease was due to bad water. He then drew a distinction between pump water and water from the companies, showing that the mortality produced by either bore a direct proportion to the quantity of fæcal matter contained in them, and also proving that the state of the atmosphere during the epidemics of 1832, 1849, and 1853, was particularly dry, with a high barometer. Dr. Routh then passed on to the subjects of typhus and typhoid fever, showing that both these diseases were frequently produced by drinking water contaminated with sewage water. This was proved by the instances of Hastings and Croydon, and rendered excessively probable by the epidemic at North Boston, U.S. Diarrhœa was frequently produced by the same cause, although the water might, in the course of filtration, lose all offensive smell. This was proved from the examples which occurred at Croydon and elsewhere. Dysentery was also produced, and several examples were given; and the author expressed his belief that much of the dysentery in the East was due to this cause, and explained the reason why these diseases often yielded to the substitution of beer for water. The examples of cases were given to show that plague could be generated by a similar cause. The epidemic of Malta in 1813 was probably produced by the same cause, and only stopped when the mass of people were made to leave the town, and live in the country, though as closely packed in tents or otherwise as they had been in the town. Bermuda gave a marked instance of the same cause in operation, in the production of yellow fever in 1853. Dr. Routh hinted at the possibility that the same district at different seasons might give rise to different varieties of fever or other diseases, according as the poison was inspired in the air or drank in water, showing from analogous examples with drugs the different effects of ingestion and inspiration of the same drugs. It was clear that, in a vast number of cases, and during the worst period of an epidemic, the mere crowding together (though isolated cases did occur) did not always lead to undue development of the raging disease, while sometimes the most open localities suffered most, as in the instance of the Berlin epidemic of cholera in 1853. Some superadded cause (probably fæcal matters in a state of fermentation in the water drunk) was the poison in operation.

Mr. Rogers Harrison asked how it happened, if the theory advocated by the author was correct, that the diseases in question came as epidemics, and that they ever disappeared; and how it was that Holland, where the waters were so stagnant, and where almost every street was a ditch, was so free from choleraic disease.

Dr. Headlam Greenhow said, that after carefully examining the facts stated in connexion with the outbreak of cholera in Newcastle and Gateshead, he had come to the conclusion that the water, though it might have aggravated the disease, had nothing whatever to do with its origin or its propagation. The sewers emptied themselves into the river more than a mile below the point where the water was pumped into the reservoirs that supplied the town; and the pumping always commenced two hours after high water and ceased a certain time before low water, so that there could have been no fœcal contamination. It was mentioned by Dr. Snow that in the barracks, which were supplied with water from a different source, there were 500 cases of diarrhœa but no cholera, whence it was concluded that the occupants of the barracks escaped the epidemic. He (Dr. Greenhow) drew a different conclusion; namely, that the disease which in the town assumed the malignant form of cholera, in the barracks (owing to greater cleanliness, and more prompt medical attendance) assumed the milder form of diarrhœa. Close to the barracks was a village named Spitaltongues, which did not receive its water from the river, but which suffered severely from the malignant cholera. Pettenkoffer had mentioned, in reference to a certain prison, that while a tenth of the prisoners were swept off by the scourge, not one of the soldiers or officers, who drank the same water and ate the same food, had the disease.

Dr. Snow referred to the mode in which he believed cholera was brought to England from Hamburgh in 1848 by John Arnold, and propagated from him throughout the metropolis. The only fermentation, he said, which it was necessary to recognise, was that of the alimentary canal of the patient. There was a period of incubation during which the morbid

matter was being reproduced, as in other communicated diseases, and any morbid matter which reproduced itself must be organised. With regard to Holland, that country was not now in the great channel of intercourse between different parts of Europe. Formerly it was so, and then it frequently suffered from severe pestilences. As to the water supply of Newcastle, it was not likely that a river which received the sewage of two considerable towns could ever be free from impurity. He did not contend that water was the only medium of conveying cholera poison, which was, no doubt, often taken by the fingers or with the food.

The author having replied, the Society adjourned.

HARVEIAN SOCIETY.

Dr. Ramsbotham, President, in the Chair.

February 21, 1856.

Mr. Weedon Cooke exhibited the uterus and vagina of a female 37 years of age, in whose case there appeared to be a combination of cancer, with fibrous tumours. There was epithelial cancer of the vagina nearly occluding the passage, with enlarged inguinal glands—a scirrhous spleen—and considerable induration and thickening of the cæcum, especially of the appendix vermiformis. The uterus contained in its body and fundus three distinct hard tumours of irregular form, which, upon being incised, showed a concentric cartilaginous aspect, more characteristic of fibrous tumour than of scirrhus. Dr. David Davis, however, states that he never could discover any distinction in appearance between these two pathological new formations. Mr. Cooke had examined the juice of these tumours, and could find no indication of what is considered to be the distinctive cancer cell, although the absence of this cell was insufficient to decide the question; as is proved by the laborious investigations of Dr. Weal, whose "Pathological Histology" recently published by the Sydenham Society ventilates much of the crude obscurities respecting cell formations. Mr. Cooke also mentioned a case of cancer of the penis existing for eighteen months in a man whose wife has had cancer of the uterus for five years. He considered, however, this to be a coincidence, not a consequence, seeing that the man had an hereditary disposition to the disease, although the wife had not; remembering also that the attempts at inoculation of cancer have failed.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

January 31, 1856.

(Communicated by the Hon. Secretary.)

Mr. Lawrence read a paper on the Cholera as it appeared in the Crimea and Bulgaria, in the Grenadier Guards, and gave a table of the cases. He was in favour of the treatment by small and frequent doses of calomel; but the disease had proved very fatal. He considered the disease owing to our great exposure, insufficient clothing, and bad food.

Dr. Gordon mentioned his experience in India, and asked, as so many cases proved fatal, if they would not have done as well without treatment?

Dr. Blenkins gave his experience of the Cholera in Bulgaria and Balaklava, and thought Dr. Ayre's plan of treatment the best. Had Dr. Ayre been in the Crimea, and similarly placed to ourselves, he would not probably have found his treatment so successful as he fancied it would be.

Dr. Burth corroborated Dr. Gordon, and said, that almost all cases were fatal at the first outbreak of cholera; afterwards, the disease got milder, and the cases got well, and thus many remedies gained a celebrity which they did not deserve. Even large doses of croton oil and opium had been recommended.

Mr. Elkington had tried the calomel treatment with some success, and said that, when sinking supervened, chloroform and opium were apparently useful.

Dr. Hume would rather be left alone, and considered that the patients were "death-struck," and all our efforts were unavailing; that in those cases that recovered, the patients got well in spite of the treatment.

Dr. Blenkins had tried "ox gall," but did not think that cholera depended on want of the secretion of bile. He exhibited some gall-stones he had found in a man who had died of cholera. He had not found any benefit from chloroform.

Dr Robinson could corroborate Mr. Lawrence's statement of the violent form of the cholera in Bulgaria.

Mr. Herbert was attached to one of the London Cholera Hospitals in 1849, and thought that many of the patients were killed by the calomel and opium. In the tropics, he used mustard emetics and sinapisms; then camphor and liquor ammoniæ. Thought that nature should be assisted.

Dr. de Chaumont had tried large doses of calomel without success. He preferred supporting the system by counter-irritation, and small repeated doses of calomel; does not approve of stimulants; thinks that keeping up the external heat is absolutely necessary. Often the salient symptoms were absent; anomalous cases sometimes occur, which get well. He thought that the internal heat should be kept up by all external means. After a thunder-storm, while he was in charge of Artillery, near Karani, all the cases changed their type. Thought that cholera is essentially a disease of the sympathetic system, the chief function of the sympathetic being to keep the capillaries in a state of equilibrium. Referred to the experience of Mons. Berniard.

Mr. Thornton considered the cases mentioned by Dr. de Chaumont were more of the character of the intense form of remittent fever met with in the tropics; that the symptoms and fatal termination were only too like cholera. A patient is admitted in a cold, almost collapsed, state, suffering from severe cramps and irritability of the stomach; no purging; almost pulseless; cold, clammy sweats; leathery state of the skin of the hands; countenance sunken; the disease is so rapid that there is much difficulty in distinguishing it from cholera; the previous history becomes of vital importance as to the true diagnosis and treatment. In this case, diffusible stimuli, counter-irritants, and any remedy that will produce re-action, and relieve the congestion of the various organs, may be employed with benefit; whereas, in true cholera, we always have what he believed to be an established fact, a premonitory diarrhœa, and with the same symptoms we always have a voluntary or involuntary diarrhœa. He has ever found that, with the exception of mustard emetics, stimulants did not answer; after the emetic, he gave small and rapid doses of calomel and opium, counter-irritants by sinapisms, turpentine fomentations, and strong frictions; also the free permission for the patient to drink cold water to relieve the intense and fearful thirst which accompanies this disease. Had always found it gave marked relief to the symptoms, as it assisted the absorption of the other remedies.

Dr. Williams considered that, in the worst cases of cholera, there is no premonitory diarrhœa.

Dr. de Chamount considered that his description was misunderstood, and that there were such cases as described by Mr. Thornton.

Mr. Bowen said, an opinion was daily gaining ground that the gastro-intestinal mucous membrane, with its sympathetic nervous system, was the *focus morbi* of cholera; and again, that the sympathetic nervous system was the seat of the functional change, which resulted in the collapse of cholera. The variability and absolute deficiency of morbid appearances indicate the folly of founding theories on our present knowledge of the disease; our present duty was to collect facts.

Dr. Burke inquired if any member had employed the warm bath. It was not successful with him.

Dr. Hume thought the disease essentially a nervous one; in bad cases the secretions are all stopped, and it is no matter what we give. That the credit is due to Dr. Dickson, of our army, who, twenty years ago, pointed out the nervous character of the disease; and, though he has been much abused, the Profession are now coming round to his opinion. The immediate removal from an affected locality has often proved most beneficial.

Dr. Williams considered that cholera is amenable to treatment, and that Dr. Dickson had conferred a great benefit on the Profession by pointing out the connexion between the sympathetic system and cholera. Hoped that pathology would do something for us, and thought that electricity is one of the great causes of the disease. He would always remove troops from the place where it breaks out; and considers that it is most important to remove them from infected localities.

He had found mustard emetics, with common salt, a most efficacious remedy, followed by camphor, calomel, and morphia every half-hour; keeping up the external heat by hot bricks, turpentine fomentations, frictions, etc., and allowing small morsels of ice to melt in the mouth.

Dr. Blenkins had found the most fatal cases among the young soldiers.

Dr. Williams, in reply to Dr. Burke, said he did not consider cholera contagious.

Mr. Jessop spoke of the chemical action of calomel in cholera. He considered that cholera was not a blood-disease, but a powerful devitalization of the ganglionic system. That, as the patient dies from anæsthesia, his strength should be supported by frequent doses of beef-tea, and rubbed over with oil to prevent further loss of animal heat. Excessive vomiting should be checked by copious draughts of warm water, rendered saline, as recommended by Dr. Prout in vomiting from biliary calculus.

Dr. Wordsworth considered cholera essentially a blood-disease, depending on emanations from the surrounding neighbourhood; considered the disease contagious. Thought the best treatment was, to keep up the cutaneous secretions by external heat. Would give as much cold water as the patient could drink, and keep the lips moist with ice.

The thanks of the Meeting were then given to Mr. Lawrence for his paper.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel greatly obliged if you will give a place in your columns to the following circular letter, which I have forwarded to the Local Secretary of each Union that has joined the Poor-Law Medical Reform Movement. Its insertion in your Journal will be the means of bringing it under the notice of all those Union Medical Officers who, from various causes, have delayed meeting, and will give them also an opportunity of communicating to me their intention relative to the proposed London Meeting. Unions representing seven hundred gentlemen have already met; this ought to be a sufficient guarantee that the movement is a reality, and the appeal to Parliament certain; the co-operation of all is, however, most desirable, and I would, therefore, urge those who have not already met to do so immediately. I am, &c.

Richard Griffin.

12, Royal-terrace, Weymouth, April 5, 1856.

"Poor-Law Medical Reform Association.

"Dear Sir,—I have been requested to convene a Public Meeting in London, at the end of this month or the beginning of next. Previously to my taking this step I wish to ascertain how many of the Union Medical Officers are likely to attend; I shall therefore feel obliged by your informing me if it will be convenient for you and any of your colleagues to do so. Unless we can ensure a large number, I am of opinion it would not be advisable to assemble, as a small meeting might injure our cause in the eyes of the world. One hundred and forty Unions have joined the movement, but these are not sufficient to carry out my original intention of holding County Meetings to elect Representatives and to pay their expenses to London; therefore each gentleman must defray the cost of his own journey, unless he has subscriptions in hand to appropriate to that purpose. I am already in possession of the sentiments of the Medical Officers of these Unions, and should a Meeting not be held, am prepared to draw up a form of Petition to Parliament which will embrace the views of the majority, a copy of which shall be submitted to you for consideration. Subjoined is a list of the Subscriptions received by me; but as the amount in hand, after payment of expenses already incurred, is insufficient for the hire of a room for a Public Meeting, advertisements, printing, postage, etc., I shall feel obliged by the Local Secretaries forwarding the money in their hands at their earliest convenience. Requesting an early reply,

"I am, Dear Sir, faithfully yours,

"Richard Griffin.

"12, Royal-terrace, Weymouth, April 4, 1856."

Here follows a list of Subscriptions to the amount of £24 10s.

Guilteross, Norfolk.—At a meeting of the Medical Officers of the Guilteross Union, in the County of Norfolk, held on March 28, to take into consideration Mr. Griffin's appeal to the Poor-law Medical Officers; it was unanimously resolved:—1. That Government should be requested to revise and increase the salaries of the Poor-law Medical Officers, in order that they may be fairly and adequately remunerated. 2. That the salaries be paid from the Consolidated Fund. 3. That the Medical Officers of all the Unions be under the government of a Board of Medical men. 4. That the remuneration for the operations under Article 177, be increased; and that the undermentioned operations be included in the said Article, with an adequate fee for each:—Fractures or dislocations of clavicle, ribs, hands and fingers, foot and toes, pelvis, lower jaw, spine, and patella; hydrocele, castration, catheterism; removing tumours, nævi, or polypi; harelip; amputation of mammæ; paracentesis thoracis et abdominis; reduction of hernia. 5. That the Medical Officers be paid for giving certificates of all kinds. 6. That a subscription of 5s. quarterly be paid in furtherance of Mr. Griffin's object. 7. That the thanks of this meeting be tendered to Mr. Griffin, for his unexempled endeavours on behalf of the Union Surgeons. 8. That a copy of these Resolutions be forwarded to Mr. Griffin and the Journals.—Signed, Horace Howard, Henry Ward, Henry Crooks, C. Morgan, Henry P. Leech.

Manchester.—At a meeting of the Medical Officers of the Manchester Union, it was unanimously resolved,—1. That this meeting being duly impressed with the deficient remuneration of Union Surgeons generally, and the want of an examination of the districts, as recommended by the Committee of the House of Commons of 1854, views with much pleasure the present movement for effecting these objects. 2. That the Medical Officers of this Union hereby form themselves into an Association for the promotion of this movement. 3. That this meeting believes that the best method of carrying out the above views will be by the presentation of a Petition to Parliament as soon as possible, and that the Members for the city of Manchester and County of Lancaster be requested to support its prayer. 4. That Mr. Armstrong be appointed Local Secretary and Treasurer. 5. That a subscription of 5s. each be entered into, and forwarded at once to Mr. Griffin, to be repeated quarterly, if necessary. 6. That a small subscription be likewise made for incidental expenses. 7. That the best thanks of this meeting are due, and are hereby given, to R. Griffin, Esq., for his exertions on behalf of Union Surgeons.—(Signed)—John Armstrong, Local Secretary.

Wickhambrook.—At a meeting, held at Wickhambrook, of the Medical Officers of the Risbridge Union, viz.:—Messrs. Stutter, Crosby, Nazer, and Simpson, at which a letter was read from Mr. Brown regretting his absence, but wishing to join in any proceedings adopted; it was resolved, 1. That the thanks of the meeting be given to Mr. Griffin for his exertions in furthering the interests of the Union Surgeons, and that the utmost efforts be used to promote his views. 2. That a subscription of 5s. per quarter, if necessary, should be forwarded to Mr. Griffin from each member. 3. That an account of the meeting be sent to Mr. Griffin and the Medical Journals. 4. That Mr. W. Simpson, Haverhill, be appointed Local Secretary and Treasurer.

Gateshead.—At a meeting of the Medical Officers of the Gateshead Union, held March 22, pursuant to notice, the following Resolutions were passed:—1. That the Medical Officers of this Union do send in their adhesion to the movement now originated by Mr. Griffin, of Weymouth, for the better regulation of the Medical relief to the poor, and do promise their co-operation as far as regards the general principle of the movement. 2. That the Medical Officers of this Union do form a Committee, and that Mr. Wilson be nominated Secretary, with power to receive a small subscription to defray the incidental expenses.—Robert Davis; J. H. Stevenson; John Callender; R. H. Wilson; Henry Dodd; John M Allum.

York.—At a meeting of the Medical Officers of the York Poor-Law Union, the following Resolutions were unanimously agreed to:—1. That the thanks of this meeting are due to Mr. Griffin for his exertions in the cause of Union Medical Officers, and that the agitation commenced by him ought to be supported. 2. This meeting is of opinion that the Minute of the Poor-Law Commissioners of June 6, 1839, and repeated in 1841, contains the principles on which a just and equitable

remuneration may be founded. 3. That in recognizing any principle of remuneration, due regard should be had to the area and population of the district. 4. That the Schedule of Fees for extra Surgical cases should be extended. 5. That the fee for Midwifery of more than a mile from the Officer's residence, should not be less than a guinea. 6. That immediate legislative interference should be sought for. 7. That Mr. North do act as Secretary, with power to receive subscriptions. 8. Should any other course than that contained in the above Resolutions be deemed desirable by the majority of Union Surgeons, the Officers of this Union will do their utmost to promote unanimity, and to aid such measures as may be the most conducive to the general good.—York, April 2, 1856.

Bury, Lancashire.—At a meeting of the Medical Officers of the Bury Union, held at the residence of Mr. Bott, April 1, 1856; present, Mr. Bott in the chair, Messrs. Wood and Nuttall: it was resolved:—1. That the thanks of this meeting be tendered to R. Griffin, Esq., for his exertions in the cause of the Poor-law Medical Reform. 2. That a subscription of 5s. per quarter be paid by each Officer of the Union, and that Mr. Nuttall be requested to act as Local Secretary and Treasurer. 3. That the meeting, without pledging itself to details, approves generally of the principles advocated by Mr. Griffin. 4. That a copy of these Resolutions be forwarded to Mr. Griffin, and to each of the Medical Journals.—Francis Nuttall.

BIOGRAPHICAL SKETCH OF M. ROUX.

(Continued from page 347.)

He was not long before he repented of his decision. He was met at the Hôtel-Dieu by a compact phalanx of the *internes* of Dupuytren, still mourning, both in heart and countenance, the loss of their master, enthusiastic worshippers of his memory, and like the old soldiers of the Empire heretofore, indignant at having to serve under another banner. The mass of the pupils, feeling the same regret, exhibited no more sympathy. Of his old class, Roux had only attracted a few faithful partisans, the remainder being detained at *la Charité*, partly by old habits, and, still more, by the eloquent teaching of his fortunate successor. Even the old and sombre walls of the vast amphitheatre were in painful contrast to the more humble, but clean and well-lighted one, at *la Charité*. For the first time, Roux felt he was not equal to himself. The ascendancy of Dupuytren still seemed to prevail, so that one might almost say his vast shade hovered there, defending to the last his menaced empire, and the theatre of his triumphs. Not only was it that a new school was thus suddenly planted in the midst of the other, but nothing could be more unlike than the mode of teaching adopted by the two men. To the grave, slow, and measured language of Dupuytren, whose superb mouth was only opened to utter oracles—to that attitude full of pride and disdain, which kept the crowd at a distance, and impressed upon it respect, mingled with fear, there now succeeded a kind of friendly chat, familiar even to gaiety, abundant to prodigality, and full of avowals and confidences. In a question of diagnosis, where Dupuytren, concealing his weak points, only allowed the genius of Surgery to be seen, was always sure of himself, and always infallible, even though truth suffered for it,—Roux exhibited man with all his errors and uncertainties, however his reputation might become damaged by it; and, as appearances are always taking, he who confessed he had been deceived, was often deemed very inferior to him who never admitted the possibility of his being so. So, too, for practical results. Great operations have never succeeded very well at the Hôtel-Dieu. But Dupuytren liked not to expose all his reverses to the light of day; and when he had to speak of things long since passed, by a fortunate defect of memory, his cures rushed to his recollection in crowds, while he retained but a vague and doubtful reminiscence of a portion of his fatal cases. His successor was unaccustomed to all this prudence, and this it was that lost him. His loyalty became a powerful instrument in the hands of his enemies, and a concealed and perfidious opposition was organized against him, that almost any one else would have succumbed to. Very soon, the reverses of the new clinique became the talk of the Hospital; the mortality was declared to be frightful, and the subject of every operation was considered as doomed. What foundation was there for these cruel statements? Perhaps Roux, too confident in the resources of art, did not place sufficient trust in those of nature; and perhaps he was somewhat led away by the natural desire of showing himself to the greatest advantage; and never did he shine more than when he handled the knife. But prior to, during, and subsequent to the operation, what a scrupulous search he made for all that could ensure its success, what a solicitude, we may almost say tenderness, he manifested for his patients! He lost many, and this is a common calamity in Surgery; but did Dupuytren save more? What would his imprudent worshippers have said, if they had torn away the veil and pursued the dangerous parallel with authentic figures? From 1818 to 1822, when Dupuytren had the Hôtel-Dieu entirely in his hands, the mortality in the Surgical wards never sank below 1 in 15, and rose in two of the years to 1 in 11, and even 1 in 10. When Roux was at the head of the *clinique*, from 1837 to 1840, the mortality sank to 1 in 17, 1 in 18, and 1 in 19. Pursuing the comparison still closer, to ascertain which of the two, under similar circumstances, lost most patients after similar operations, we find that Dupuytren, at the Revolution of 1830, only saved 8 patients from among 16 great primary amputations, while in 10 analogous operations Roux only lost 3. God forbid that we should pretend to pass judgment upon these two great Surgeons from these figures alone! The problems of Surgical statistics are not so simple. A series of fortunate operations may at a later period be balanced by others of a contrary kind. All Hospitals are not in the same sanitary conditions; and, even in the same Hospital, the same Surgeon will obtain very different results, accordingly as he has committed to his care a greater or a less number of patients; which is only saying that human powers are limited. Dupuytren, taking charge of the whole Hôtel Dieu, was insufficient for the task, and bent under its weight; and the simple division of his immense service into three served to diminish the mortality. But what we may assert is, that, if Dupuytren surpassed him in other respects, at all events, as far as the comparison of results was concerned, Roux had nothing to fear.

Nevertheless, these perfidious rumours, skilfully propagated, in part attained their aim. The confidence of the students was shaken, and a void was soon seen in the benches of the lecture theatre. The effect was even perceived in his consultation room, as is shown beyond all doubt by a curious document left by M. Roux. In studying the life of those eminent men who have cultivated and enlarged the field of Surgery, after having considered their labours with astonishment, and their works with just admiration, curiosity tempts us still further. We become desirous of learning to what extent the devotion of a whole life of labour to the service of mankind has been profitable to themselves; and we read, not without interest, that Boyer left a million francs, Dupuytren four millions, and A. Cooper, the nabob of Surgeons, more than twelve millions. But these large sums, slowly amassed, were not solely the fruits of private practice; and practice is singularly variable at the various epochs of life. Roux kept an exact account of the tribute paid to him by public confidence. In 1814, this scarcely exceeded 11,000 francs; in 1817, it amounted to 22,000, and, in 1821, to 35,000. It then regularly increased to 1833, its culminating point, when it exceeded 76,000 fr. In 1825, the epoch of his appointment to the Hôtel Dieu, his receipts were still near 70,000 fr.; but the next year they fell to 54,000 fr., and never rose again. He was not the man, however, to be cast down by the first reverse, and after bending under the shock, he only arose the prouder. Dupuytren no more, there was no one of his adversaries who could cope with him, and he was reconquering, foot by foot, his compromised popularity. A new family of respectful and devoted *internes* had gathered around him, and the amphitheatre was filled as of old. Unfortunately, serious illnesses, especially in 1842 and 1845, compelled him to relax his zeal, and interrupted the course of his returning prosperity. Moreover, the conditions were no longer the same, Surgery having undergone a transformation in Paris, which rendered success more difficult, even with the most energetic efforts. The new Hospital regulations of 1829 and 1831 destroyed the supremacy of the senior Surgeons. The services were multiplied, and the *concours*, faithfully worked, placed at their head, young, capable, and aspiring men; so that, in place of the four or five Surgeons who in 1814 divided among themselves the reputation and the practice, the number was doubled, or tripled. As liberty of teaching was also freely allowed, new *cliniques* were opened on all sides; and, at the

Hôtel Dieu itself, an independent *clinique* was established in rivalry to the official one. In former days, Roux would have applauded this important movement. He had admired the division of services in the London Hospitals, as permitting a larger number of eminent men to profit by the same opportunities of observing and acting. Often had he, during his assistancy, complained of his dependence; and educated and become famous in private schools, he always proved their eloquent panegyrist and indefatigable defender. But, when he found himself deprived, at the Hôtel Dieu of one of Dupuytren's titles, while Blandin, one of his pupils, was delivering lectures there no less attractive than his own, he was to be heard lamenting the abolition of the title of Chief-Surgeon, and while he still maintained the benefits derivable in anatomy from private teaching, he always avoided mentioning its applicability to the *clinique*. In truth, this rivalry in his own Hospital was insupportable to him, and he had not always sufficient command over himself to conceal his annoyance.

Moreover, to add to all, age was advancing, and, although his vigorous constitution gave no external sign of failure, his repeated illnesses warned him he needed some relaxation, and he had the good sense to heed the intimation. His vacations were devoted to travelling either in England, Italy, Spain, Belgium, or Germany; and, wherever he went, he received a warm reeeption from his Professional brethren, eager to receive the Nestor of French Surgery. Hospitals, museums, and schools were all visited, and all profited by, and excursions taken for pleasure were turned to the advantage of science. So, too, during the scolar year, without neglecting his duties at either the Hospital or the Faculty, he gave himself somewhat more repose, making no attempt to arrest the current of public favour, which now ran towards his younger successors. He devoted to science all the instants he thus saved from practice. His assiduity at the *Académie de Médicine*, of which he had been twice President, was remarkable, no important discussion taking place without his contributing the tribute of his vast experience; his various communications in some sort anticipating the great work he projected, the execution of which he pursued with ardour, having accumulated an immense store of materials.

In 1813, pinning his faith to Boyer, and believing that the 18th century had closed the era of discoveries, a great idea took possession of his mind, viz., the submitting all therapeutical and operative procedures to a deliberate examination, in order to establish by the results their advantages or inconveniences, and thus fix the still-wavering opinions of Practitioners. This he believed to be the task that should be assigned to the commencing century; and, although he, doubtless, soon found that there was other work for this to do, he still followed up his idea of examining every doctrine and operation by the results. To this end, from 1814 he undertook a colossal labour. Every morning he either dictated or wrote an abridged history at the bedside of each new patient; and it was the duty of several of the pupils to keep exact accounts of all the facts occurring in his wards. Not a burn, a contusion, or a wound, was left unregistered; and all his observations were kept bound in large volumes, constituting an uninterrupted series during forty-four years. Now, it was this immense mine of treasure he proposed to himself to explore and exhaust, intending to give, in a series of memoirs, the *résumé* of all he had seen, observed, collected, and done during his Surgical life. Interrupted by illness, and abandoned after the Revolution of 1848, but resumed immediately that he had recovered his health and the necessary calmness of mind, the work arrived at maturity in 1853. The preparation of the two first volumes was completed, and that of the third and fourth much advanced; he had sketched out the fifth and sixth, and projected others, without being able to fix the exact limit of the task he had assigned to himself. He worked with that impetuous ardour he always had at his command, sparing no care or labour, and the preface and first sixteen sheets of the first volume were printed off. He had, however, too little measured his strength; and, returning from the *Academie des Sciences*, of which he had just been elected President, on January 2, 1854, he was seized with an attack of cerebral congestion. The time for great labours and long hopes had passed, and his colleagues forbade him these dangerous occupatious. But he could not endure the necessary repose, and after a few days he insisted upon seeing the proofs, four sheets of which were found after his death covered with corrections traced by his failing hand. A more violent attack than the first, depriving him of all his faculties, saved him from feeling the regret of leaving his work incomplete; and he expired, without reeovery of consciousness, March 23, 1854.

His loss excited universal grief. He was not regretted alone as a great Surgeon, but as a sure and devoted friend, as an affable and benevolent teacher, an amiable and affectionate colleague, a man good and loyal to all, who had never known hatred, and who had converted almost all his rivals into friends.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Monday, April 7.

THE MEDICAL PROFESSION.

Lord Elcho moved for leave to introduce a Bill to amend the laws relating to the Medical Profession. There were three features of the Bill to which he begged to call attention. The first was non-interference with the existing rights of universities, societies, corporations, and colleges to confer licences or diplomas. The next feature was the establishment of a minimum standard of qualification for all medical practitioners; and the third feature was the extension to all qualified persons throughout the country of equal privileges with regard to practice.

The motion was agreed to, and the Bill was introdueed and read a first time.

Wednesday, April 9.

MEDICAL PROFESSION (MR. HEADLAM'S) BILL.

On the motion that the House should resolve itself into Committee on this Bill,

Mr. Cowper rose to move that it be referred to a select committee, in which he should be prepared, on the part of the Government, to take charge of it; and if certain alterations which he should suggest were adopted, also to take charge of it when it was returned to the House.

A discussion arose as to the extent to which the select committee should have power to investigate the subject, and continued in a desultory way till a quarter to six, when, according to the rule of the House, the debate stood adjourned.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 3, 1856:—

Aldridge, Russell, Christchurch, Hants.
Darke, Fitzroy Philip, Grampound, Cornwall.
Dix, William Frederick, Smallburgh, Norfolk.
Fluder, Charles John, Lymington, Hants.
Kitching, John, Dublin.
Marshall, Edward Joseph, Walsall.
Trimnell, David William, India.
Watson, Charles John, Ipswich.

DEATHS.

Calderini.—Carlo Ampelio Calderini, the learned Editor of the celebrated "Annali Universali," commeneed by Omodei, died at Milan, on the 11th of February, after a prolonged illness, at the age of 48.

Emery.—March 7, at Paris, Dr. Emery, Member of the Academie de Médecine, and formerly Physician to the St. Louis Hospital. He had been Professor of Anatomy at the Ecole des Beaux Arts for thirty-eight years.

Hopper.—Mareh 30, at Coleshill-street, Eaton-square, R. S. Hopper, Esq., M.D., aged 41, formerly of Leeds.

Moffitt.—April 6, at Davenport, after a long illness, James Moffit, Esq., M.D., First-Class Surgeon. He served under the Duke of Wellington in the Peninsula, and at Waterloo; and dressed the only wound His Grace reeeived.

BEQUESTS.

YARBURGH YARBURGH, ESQ., of Sowerby House, Yorkshire, £90,000 personalty within the province of Canterbury, has bequeathed to the York County Hospital, York Blind Asylum, General Infirmary, Kingston-upon-Hull, and the Deaf and Dumb Asylum, Doncaster, to each £100, and bequests to several other institutions.

APPOINTMENTS.

MIDDLESEX HOSPITAL.—Mr. Arthur J. Cribb, of Bishop's Stortford, has been appointed House-Surgeon to the Middlesex Hospital.

THE next meeting of the British Association for the Advancement of Science has been fixed for Wednesday, August 6, at Cheltenham. Dr. Daubeney will preside.

DR. P. B. AYRES has been appointed Lecturer on Materia Medica and Therapeutics to the School of Medicine adjoining St. George's Hospital. Dr. Ayres is already favourably known to the Profession as a Lecturer on several branches of Medical science.

UNQUALIFIED PRACTICE.—On Tuesday, at Tipton, Staffordshire, Robert Dullam Tamlyn, a Chemist and Druggist, was committed to the assizes for trial on a charge of manslaughter. Being an unqualified Practitioner, he was in attendance on a respectable woman in her confinement. Both mother and child died.

HER MAJESTY'S BENEVOLENCE.—Among the numerous acts of kindness displayed by Her Majesty towards the wounded soldiers from the Crimea, the public will be gratified to learn, that, at her own private expense, the Queen has commanded Mr. Heather Bigg, of 29, Leicester-square, to construct artificial legs for several men whose severe mutilation attracted Her Majesty's notice during her recent visits to the Hospitals of Portsmouth and Chatham. With two exceptions, all these poor fellows had lost both legs, but they are now, by Her Majesty's bounty, enabled to walk. In addition to these, the Queen requested Mr. Bigg to supply three men with artificial arms.

THE HOLBORN BOARD OF WORKS AND THE NEGLECT OF PRECAUTIONS AGAINST SMALL-POX.—Dr. Septimus Gibbon, the District Health Officer, in recording the death of a female servant from confluent small-pox, who had not been vaccinated, made the following remarks :—"This loathsome and fatal disease is, thanks to the immortal Jenner, entirely preventible. Some countries, as Sweden and Denmark, have, by means of our countryman's discovery, entirely banished, while we continue to harbour, an epidemic which disfigures and destroys the flower and strength of our population. In this district last year small-pox carried off twenty persons in the prime of life, and entailed on many others, I doubt not, a vast amount of deformity and destitution. Vaccination is, I find, greatly neglected among the poorer inhabitants of the courts and alleys around Gray's-inn-lane. This neglect, I trust, will be remedied by the Compulsory Vaccination Bill at present before Parliament. There is another precaution which ought to be enforced by the Legislature. The cabs and other public vehicles ought to be strictly prohibited from carrying small-pox patients. It is the general practice of workhouses and general hospitals to transfer every patient labouring under small-pox to the institution specially devoted to that disease. This is invariably effected by means of the public cabs—a mode of conveyance which inoculates, it may be, twenty with the distemper, while it jeopardizes or retards the recovery of the patient. It is not long since I attended a gentleman in this district who died of confluent small-pox, contracted by getting into a cab that had been so used. To inoculate an individual for this disease has long been regarded by the law as a felony. Why should not the wholesale inoculation of the public in the manner I allude to be made equally a felony? The Government are now legislating for the prevention of small-pox, and your Board may think it desirable to draw its attention to the matter." Mr. Southee, a solicitor, of Ely-place, said that the Government, in legislating for the poor, prevention of diseases, and similar objects, too often neglected to take counsel of Medical men, who were best able to give it, and, therefore, moved that a copy of Dr. Gibbon's able report be forwarded to the President of the Board of Health, who, he understood, had charge of the new Vaccination Bill. Mr. John Ord Hall seconded the motion, which was carried unanimously.

EPIDEMIOLOGICAL SOCIETY.—At the Annual Meeting of this Society, held on Monday, April 7, 1856, at 37, Soho-square, the following gentlemen were elected office-bearers for the years 1856-57 :—*President.*—Benjamin Guy Babington, M.D., F.R.S. *Vice-Presidents.* — Thomas Addison, M.D.; Richard Bright, M.D., F.R.S.; Sir B. C. Brodie, Bart., F.R.S.; Sir Wm. Burnett, K.C.B., K.C.H., F.R.S.; Sir C. M. Clarke, Bart, M.D., F.R.S.; Rev. Thomas Dale, M.A., Canon. Res. of St. Paul's; R. D. Grainger, Esq., F.R.S.; Sir Charles Hastings, M.D., D.C.L.; Sir John Liddell, C.B., M.D., F.R.S.; John Nussey, Esq.; John Propert, Esq.; John Simon, Esq., Medical Officer of the General Board of Health; Andrew Smith, M.D., Director-General of the Army and Ordnance Medical Departments; Thomas Southwood Smith, M.D.; Colonel Sykes, V.P.R.S.; Thomas Watson, M.D. *Treasurer.*—Thomas Addison, M.D., Vice-President. *Honorary Secretaries.*—J. O. M'William, M.D., F.R.S., R.N.; J. H. Tucker, Esq. *Foreign and Colonial Secretaries.*—Belgium: A. Sayer, M.D., 28, Upper Seymour-street, Portman-square. East Indies: James Bird, M.D., 27, Hyde Park-square; C. Finch, M.D., 58, Porchester-terrace, Bayswater. Egypt and Syria: William Camps, M.D., 52, Park-street, Grosvenor-square. France: Waller Lewis, M.B., F.G.S., Medical Department, General Post Office. Germany and Russia: Hermann Weber, M.D., 49, Finsbury-square; W. E. Swaine, M.D., York. Portugal and the Brazils: J. O. M'William, M.D., R.N., F.R.S., 14, Trinity-square, Tower-hill. Sweden, Norway, Denmark, and Iceland: R. Gordon Latham, M.D., F.R.S., 29, Upper Southwick-street, Hyde-park. West Indies and North America: G. Milroy, M.D., 55, Victoria-street, Westminster. *Other Members of Council.*—C. L. Bradley, Esq.; A. Bryson, M.D., F.R.S., R.N.; Burford Carlill, M.D.; *W. D. Chowne, M.D.; Robert Cross, M.D.; *George Glover, Esq.; Headlam Greenhow, M.D.; E. Headland, Esq.; T. Hunt, Esq.; C. F. J. Lord, Esq.; J. F. Marson, Esq.; *E. Murphy, M.D.; B. W. Richardson, M.D.; E. C. Seaton, M.D.; F. Sibson, M.D., F.R.S.; J. Snow, M.D.; *F. O. Ward, Esq.; J. Waters, M.D.

BELFAST BRANCH OF THE MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—Dr. Gordon, Treasurer of the above, begs to acknowledge the receipt of the following sums for the current year, viz. :—Dr. T. H. Purdon, £20 (donation); ditto, annual subscription, £5; Dr. Stephenson, ditto, £5; Dr. Drennan, ditto, £1 1s.; Dr. Robert Stewart, ditto, £1 1s.; Surgeon Browne, R.N., ditto, £1 1s.; Dr. J. W. T. Smith, ditto, 10s. 6d.; Dr. M'Gowan, Carrickfergus, ditto, £1 1s.; Dr. G. Forsythe, ditto ditto, £1 1s. And the following, per Surgeon Black, Ballymena, viz :—Surgeon Patrick, £1; Surgeon Black, 10s.; Dr. Kidd, 10s.; Dr. Arthur Ross, 10s.; Dr. Hay, of Connor, 5s.

THE WILL of Sir Benjamin Fonseca Outram, K.C.B., of Hanover-square, has been proved under £50,000.

LUNATIC ASYLUMS OF BELGIUM.—From the Third Report of the Lunacy Commission it appears that, in 1853, there were 51 Lunatic Asylums. They differ from most foreign asylums in being on a rather small scale, since only 6 of the number possessed above 200 inmates, with the exception of the colony of Gheel, where there were 825 patients, the majority being incurable. On the 31st of December, 1854, the entire number of insane amounted to 4094, of which number 2189 were returned as incurable, and 1080 as curable—a proportion which, there is every reason to suppose, is incorrect. These establishments have undergone great improvements of late years as regards their structure, the abolition of cells, and the humane treatment of the inmates; but the Commissioners complain that, as regards Medical supervision, they are still very defective, the Physician not being, as he should be—the true head of the Institution, the point towards which all the elements of the service should converge.

DEATH OF AN ECCENTRIC CHARACTER.—On Friday, the 7th inst., were consigned to their final resting-place, in the churchyard of Keighley, Yorkshire, the remains of one of the most eccentric individuals that ever lived; in fact, a parallel seems scarcely possible, of a man voluntarily going to bed in good health, and remaining there for a period of forty-nine years. He went by the cognomen of "Old Threelaps" in the neighbourhood, but his real name was William Sharp. He

* Those gentlemen to whose names an asterisk is affixed were not on the Council last year.

lived at an isolated house called "Worlds," (probably an abbreviation of "World's End"), not far from Braithwaite, in the parish of Keighley. He was the son of a small farmer, born A.D. 1777, and from an early age showed little predisposition to steady work. When thirty years of age he took to his bed and the room, which he never left till carried thence on the day of his funeral. The cause of this extraordinary conduct is believed to have been a matrimonial disappointment. Henceforth the young man consigned himself to a small room, nine feet square, with the determination of spending the remainder of his existence between the blankets. At the time of Sharp's death, the window of his room had never been opened for thirty-eight years. In this dreary abode did this strange being immure himself. He obstinately refused to speak to any one, and, if spoken to, never answered, even those who were his constant attendants. During the whole period of this self-imposed confinement he never had any serious illness, the only case of indisposition those about him can remember, being a slight loss of appetite for two or three days, caused apparently by indigestion, and this notwithstanding he ate on the average as much as any farm labourer. Though arrived at the age of seventy-nine years, his flesh was firm, fair, and unwrinkled, save with fat, and his weight was estimated at about 240 pounds. Whenever a stranger was ushered into his den, he immediately buried his head beneath the bedclothes. About a week before his death his appetite began to fail, and his limbs became partially benumbed, so that he could not take his food. From this attack he seemed to rally; however, during the night of Sunday, the 2nd inst., he became rapidly worse, and died at four the following morning. Shortly before he expired, he was heard to exclaim—"Poor Bill—Poor Bill—Poor Bill Sharp!"—the most connected sentence he had been known to utter for many a year.

Illustrated News.

REYNOLDS v. BRIDGE—The following is an abridgment of the report of this trial which appeared at full in the *Taunton Courier* of last week:—The parties were both Surgeons. The action was brought to recover £2500 as a penalty under a deed of arrangement for a breach of a covenant in that deed. In 1847 the defendant, who was an old practitioner at Wellington, entered into partnership for life with the plaintiff, who was a young man who had just commenced practice. In 1852 differences occurred between them, and two cross actions were brought, which were referred to Mr. Howell, of Wandsworth, by whose award the deed upon which the present action was brought was executed between the parties. By the deed it was covenanted that they were each to keep separate books containing entries of the practice and moneys received by each; that the defendant should receive £350 a-year out of the proceeds of the business for three years; and that he should use his best endeavours to promote the interests and preserve the practice of the firm during the time, and should introduce the plaintiff to all his exclusive patients; and, after the expiration of the three years the defendant should not act except in consultation with other Medical men, and that he should not assist or introduce any other Medical man. The penalty on the first breach was £500, and, as to his practising, £2000. It was proved that the defendant had scarcely ever come to the Dispensary, and that he kept no cashbook; that he had not introduced the plaintiff to any of his exclusive patients; that he had evaded the clause of not practising, except in consultation, by acquainting the patients that he was forbidden under the deed to practise, but that he would attend them by bringing any other Medical man with him; that he had also stated that he must decline to meet the plaintiff, but named four Medical men with whom, or any others, he would attend. This last point was chiefly relied upon as having produced great injury to the plaintiff. For the defence, the defendant was called, and mainly contradicted all that was alleged on the part of the plaintiff. After a trial lasting a day and a-half, the jury returned a verdict for the plaintiff—Damages, £1200. The verdict was entered for £2500 as liquidated damages under the deed, with leave to move.

HEALTH OF LONDON IN THE QUARTER ENDING MARCH.—In the quarter which has just terminated, comprising January, February, and March, the public health was better than the population of London usually enjoy in that period of the year. The temperature of the air was generally high during the first nine weeks. The mean temperature of the quarter was 40·1°, and that of the seventh week was 17°, or 8·4° above the average. The total number of deaths in the three months was 14,533, which is little more than that of the same quarter in 1852, when the population was not so great; it is also less than the numbers in 1853 and 1854, and much less than the number in 1855, which rose to 19,627. The mean temperature of the quarter that has now passed was 6° higher than that of the corresponding quarter in 1855, and it is probable that to this circumstance is chiefly due a difference in the number of the deaths to the extent of more than 5000. In comparing the results in the Tables of Fatal diseases of the winter quarters of 1855 and 1856 it is found that the deaths from zymotic diseases were respectively 3856 and 2897; from tubercular diseases (including phthisis) 2946 and 2307; from diseases of the respiratory organs 4850 and 2883; and in like manner there is a decrease for the present year under other heads, except those which are comparatively unimportant in point of numbers. In all the principal diseases of the zymotic class the first quarter of this year shows a decided decrease, except in typhus, the deaths from which rose from 572 to 719. Typhus has lately been rather prevalent, especially in the East division of London, where the deaths from it in the last three months were 212. Of the 14,533 persons who died last quarter, 3073 ended their days in public institutions, being in the proportion of more than one in five; 1817 died in 45 workhouses, 1065 in Hospitals for the sick, 88 in lunatic asylums, 11 in prisons, the remainder in asylums for soldiers, sailors, and foreigners.

MORTALITY NOTABILIA.—The number of deaths registered in London in the week that ended on Saturday was 1284. In the ten corresponding weeks of the years 1846—55 the average number was 1166, which, if raised by a tenth part, for increase of population, becomes equal to the number actually registered last week. Phthisis (or consumption) carried off a greater number of persons than any other disease; it was fatal in 152 cases, bronchitis in 135, pneumonia in 112, typhus and common fever in 61, hooping-cough in 43, scarlatina in 35, measles in 23, diarrhœa in 16, small-pox in 15.

METEOROLOGY.—At the Royal Observatory, Greenwich, the mean height of the barometer in the week was 29·776 in. The highest reading was 30·14 in. on Sunday (March 30.) The mean temperature of the week was 46·4°, which is 2·6° above the average of the same week in thirty-eight years (as determined by Mr. Glaisher.) The *lowest* temperature occurred on Monday, and was 24·7°; the wind veered towards the south, and the *highest* was 66·8°, and occurred on the following day. The mean dew-point temperature was 35·8°; and the difference between this and the mean temperature of the air was 10·6°. The temperature of the water of the Thames rose to 49·5° on Saturday, the lowest on that day was 46·5°; the mean of the week was 45·5°. Wind south-east and south-west. Rain 0·9 in. Horizontal movement of air, 1195 miles.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	3	5	7	5	2	6
North	490,396	4	2	7	14	5	11
Central ..	393,256	..	5	7	3	1	7
East.....	485,522	4	1	5	5	4	22
South	616,635	4	10	9	16	4	15
Total..	2,362,236	15	23	35	43	16	61

DEATHS IN PUBLIC INSTITUTIONS for the Week ending April 5:—

	Males.	Females.	Total.
Workhouses	65	62	127
Prisons	1	..	1
Military and Naval Asylums ..	3	..	3
General Hospitals	58	27	85
Hospitals for Special Diseases ..	6	6	12
Lying-in Hospitals	1	..	1
Military and Naval Hospitals ..	9	..	9
Hospitals for Foreigners, etc. ..	..	1	1
Lunatic Asylums	5	5	10
Total	148	101	249

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, April 5*, 1856.

Causes of Death.	In the Week ending Saturday, April 5, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
	Mean temp. °						°
Mean Temperature	46·4						45·2
All Causes	1284	577	182	234	244	38	1166·4
Specified Causes	1270	574	182	233	243	38	1157·1
Diseases:—							
1. Zymotic Class	241	172	28	22	18	1	209·1
2. Dropsy, Cancer, and others of uncertain seat	57	10	4	20	20	3	49·9
3. Tubercular Class	204	73	71	55	5	..	199·6
4. Of Brain, Nerves, etc. ..	163	63	14	32	48	6	134·5
5. Of Heart, etc.	54	8	10	14	21	1	43·2
6. Of Respiratory Organs ..	276	137	19	43	67	10	239·2
7. Of Digestive Organs ..	70	28	12	16	13	1	63·1
8. Of Kidneys, etc.	8	3	..	4	1	..	12·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	6	1	2	3	..	..	8·3
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	8	2	2	4	..	..	8·6
11. Of Skin, etc.	4	1	..	2	1	..	2·2
12. Malformations	3	3	..	..	..	..	3·1
13. Debility from Premature Birth, etc.	24	24	..	..	..	..	28·0
14. Atrophy	26	13	1	3	9	..	30·1
15. Age	38	..	..	..	22	16	50·2
16. Sudden	25	10	3	4	8	..	20·6
17. Violence, Privation, etc...	63	26	16	11	10	..	55·2
Causes not specified.. ..	14	3	..	1	1	..	9·3

BOOKS RECEIVED.

The Census of Ireland for the Year 1851. Part IV. Dublin: Thom and Sons. 1855.

Second Report of the Postmaster-General. London: Eyre and Spottiswoode. 1856.

On the Medical Selection of Lives for Assurance. By Dr. Brinton. London: Churchill. 1856.

The English Cyclopædia—Natural History. Vols. I., II., III., IV. London: Bradbury and Evans. 1856.

Report on the Accommodation in St. Pancras Workhouse. By Henry Bence Jones, M.D., F.R.S., Physician to St. George's Hospital. London: Eyre and Spottiswoode. 1856.

The Hospital System of London. London: Davy and Son. 1856.

Die Ohrenheilkunde in den Jahren 1851—55. Von Dr. Wilhelm Kramer. Berlin. 1856.

An Oration delivered before the Hunterian Society. Feb. 13, 1856. By Thomas Callaway, F.R.C.S.

TO CORRESPONDENTS.

We have received a number of a popular monthly journal, called the *Family Friend*, containing an admirable article by Dr. Letheby, the Medical officer of the City of London, on the deadly effects of Quack Medicines, especially upon the poor and ignorant classes of society. In this article, Dr. Letheby especially points out the dreadful effects of Coffinism, and details a number of cases in which persons have been distinctly poisoned by *lobelia inflata* and cayenne pepper. We are happy to see a periodical which circulates among the middle classes grappling so efficiently with the monster evil of Quackery.

Mr. W. Pretty, on whom we unwittingly conferred the title of Doctor in our last number, has written to us to deny the "soft impeachment," and to inform us that he is a M.R.C.S.E. of 1814. It is his son who is a Doctor of Medicine.

Medicus.—Under the proposed measure it was intended that all British Graduates should be registered, but in the case of Foreign Graduates it would have been necessary to show that the degree had been obtained by education and examination. Some of the German degrees are very valuable, but others are almost worthless as testimonials of Professional competence.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—The Provincial Medical and Surgical Association having, by their proceedings at Birmingham last year, succumbed to the Metropolitan Branch, I was induced, as one of its oldest members, to withdraw my name. At this I rejoice, finding that by the New Reform Bill introduced under their auspices, the interest of the provincial Physicians is entirely overlooked, perceiving by Dr. Alderson's letter in the *Times* of last week, that the provincial Physicians not members of the College of Physicians are the only members of that class of the Profession who are to be compelled to pay £10 for their registration. Now, Sir, however much Dr. Alderson may boast of the finances of his College, there are few, I suspect, who will give his College credit for disinterestedness in promoting the reform of the Profession. I am a provincial Physician in my 78th year, and may expect every week to be my last; is it fair, therefore, that I, and others of the like age, should be compelled to pay the same as those who have just entered the Profession?

April 7, 1856. I am, &c. M. S.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

How are the Officers of Health to obtain the Mortality Returns of their Districts?

Sir,—In reply to Dr. Robert Druitt's question, I beg to say that I have always extracted my returns from the Registrar's books myself, and I do not conceive that any other means of obtaining them can be satisfactory.

The plan suggested by Dr. Druitt will fail, because there is a number of deaths registered "Uncertified," and these would escape the observation of the Officer of Health, if he obtained his return in the mode suggested by "M.D."

It is not in my opinion at all necessary that the Officer of Health should see the original Medical certificate, as the Registrars copy them most carefully into their books, and their copies may be considered authentic, and it is on them that we must depend for our statistics of sanitary progress.

I am, &c. J. H. Houghton,
Officer of Health to the Local
April 8, 1856. Board of Health at Dudley.

A Father.—We have already expressed our opinion pretty strongly upon the impropriety of the exhibition alluded to, and have published a letter from an Irish Student of Medicine, exposing the manner in which the visitors to the Museum are liable to become the victims of the most disgusting and barefaced quackery. The book put into the hands of those who visit the place, is a sufficient evidence, if any were wanting, of the real object of the exhibitors. We wonder that the Society for the Suppression of Vice does not interfere to put a stop to the indecency.

Dr. Bence Jones's Lecture has been received.

H. H., London Hospital.—The arguments in favour of the unity of the human species are to be found in Owen's Lectures. The *Troglodytes gorilla* is the ape which comes nearest to man in conformation. It is distinguished by a prominent supra-orbital ridge; and by the great development of the canine teeth, to say nothing of its true *quadrumanous* character.

Dr. G. Robinson's paper is declined with thanks, as the matter has now become devoid of public interest.

COMMUNICATIONS have been received from—
Dr. Marcet; Mr. Wm. Pretty; Mr. John Armstrong; Mr. S. W. North; Mr. Richard Barwell; Mr. T. H. Huxley; Dr. Septimus Gibbon; Mr. Richard Griffin; Dr. Baines; Mr. W. Price Jones; Mr. H. Heather Bigg; Mr. W. Thornton, Crimea; Mr. F. T. Bond; Dr. Hodgkin; Mr. W. L. Britton; Mr. Spencer Wells; Dr. Bence Jones; Dr. Brown-Sequard; Dr. Bronner; Mr. J. H. Houghton; The Hon. Secretaries of the Epidemiological Society; Mr. W. Simpson; The Medical Officers of the Gateshead Union; M. S.; Erin-go-Bragh; Dr. Murchison; Dr. G. Robinson; The Royal Institution; A Father; Beta; H. H., London Hospital; A Man about the Hospitals; Dr. W. C.; Mr. H. P. Leech; C. S.; Dr. Beale; Mr. John Fothergill, Darlington; Mr. Jas. Linton; Mr. J. J. Furlong, Bishop's Stortford; Dr. Baines.

APPOINTMENTS FOR THE WEEK.

April 12. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.
Medical Society of London, 8 p.m.: Dr. Hassall "On the Composition and Adulteration of Liquorice."
Royal Institution, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."
Royal Botanic Society, 3¾ p.m.

14. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.

15. *Tuesday.*

Operations at Guy's, 1 p.m.
Pathological Society, 8 p.m. *Council* meets at 7 p.m.
Royal Institution, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy."
Linnean Society, 8 p.m.

16. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

17. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.
Harveian Society, 8 p.m.: Dr. Theophilus Thompson "On a Process of Restoration in Pulmonary Consumption."
Royal Society, 8½ p.m.
Royal Institution, 3 p.m.: Professor Tyndall "On Light."

18. *Friday.*

Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.
Western Medical and Surgical Society, 8 p.m. *Nomination of Officers.* Dr. Arlidge "On General Paralysis of the Insane."
Royal Institution, 8½ p.m.: Dr. H. Bence Jones "On Ventilation, and the means of Determining its Amount."

ORIGINAL LECTURES.

LECTURES ON EPILEPSY.

DELIVERED AT

Westminster Hospital.

By CHARLES BLAND RADCLIFFE, M.D., L.R.C.P.
Assistant-Physician to, and Lecturer on Materia Medica at, the Westminster Hospital.

Lecture III.

The Treatment of Epilepsy.

Arguing from the physiological and pathological premises it may be inferred that epilepsy will have to be cured, if it is to be cured at all, by strengthening and *stimulating* the system, and not by debilitating and depressing it; and this inference is not altogether at variance with the experience of the past. On the contrary, the growing disposition to leave nature to her own course, and the undisguised dissatisfaction with all "lowering measures," furnish an argument of some weight against the opinion that these measures are the proper remedies for epilepsy. The necessity for a tonic and stimulant plan of treatment, however, does not rest merely upon *à priori* inferences, or upon the negative results of past experience; and this will appear in the sequel.

1. Good substantial food, of which a large portion is beef or mutton, is given to epileptics in many lunatic asylums, and with unquestionable benefit; indeed, the rule of these establishments appears to be, that if any difference is made between the epileptics and other inmates, it must be in favour of the epilepties. For my own part, I have been in the habit from the first of recommending a diet which contains an unusual quantity of animal food; and, in this recommendation, I have had a view to the greater digestibility as well as to the more nutritious qualities of this kind of food. I have, also, on similar grounds, been in the habit of restricting the use of the usual quantities of farinaceous and of green vegetable matters. I have certainly seen no ill consequences from this practice; on the contrary, I have now had many opportunities of seeing the good effects of this practice after a patient has been upon an opposite course; and I am fully convinced that one main reason why, *cæteris paribus*, a poor epileptic has a worse chance of recovery than a rich epileptic is because he cannot command the requisite supply of appropriate food.

The prejudice against stimulants is very great. Still, beer is given to epileptics in many lunatic asylums, and, to say the least, no harm is known to result from the practice. Beer and wine are also given in some exceptional cases out of these establishments, and with no very evident harm. For my own part, I am in the habit of recommending a liberal allowance of stimulants, and the result of my experience up to the present time is to satisfy me, not only that stimulants do no harm, but that there is no disease in which they are more needed than in epilepsy. I have notes of cases in which recovery was delayed until the patient had been persuaded to take beer or wine; and I have notes of other cases in which no progress was made because the patient could not get wine. More than one patient has told me that he has succeeded in warding off a fit by a glass of wine or by a draught of ale. Indeed, so satisfied am I of the necessity of stimulants from what I have seen of their effects, that I should have little hope of benefitting a patient who could not obtain them, unless he could remove to a more genial climate than that of this country.

It is in keeping with these several considerations, that epilepties are benefited by coffee, which is a powerful stimulant, and not by tea, which is rather a sedative. Why it is so—seeing the active principles of these beverages are analogous or identical—is not easy to say; but so it is. Coffee is certainly a peculiar stimulant. The student takes coffee t keep him awake and warm. The opium-eater takes coffee t enhance the stimulating effects of the opium, or to dispel th subsequent drowsiness; and it is given to him if he has over dosed himself. The inhabitants of hot countries trust to it for dispelling languor and lassitude, and it does not disappoint them. The Arab finds it indispensable in his long ride across the weary desert. "The hunters of the Isle of France and Bourbon," says Southey, (Correspondence, Vol. IV., p. 300,) "take no other provision into the woods; and Bruce tells us that the viaticum of the Gallas in their expeditions consists of balls of ground coffee and butter; one per diem, I believe, the size of a walnut, sufficing to prevent the sense of fatigue." Tea, on the other hand, seems to exert a sedative influence after the heating effects of the hot water in which it is infused have passed off. Tea, also, differs from coffee (in very many persons at least), in having diuretic properties, and this difference may possibly be one means of accounting for the difference of its action upon epilepties; for, as we have endeavoured to show elsewhere, there are some grounds for supposing that the occurrence of convulsion or spasm is greatly favoured by anything which will tend to empty the blood vessels of their contents. In the same way, the diuretic properties of gin may possibly explain why that spirit (as is well known) is so very inferior to brandy in the power of relieving spasm, and if so, then it is easy to understand that the action of coffee and tea may be very different; for, if brandy and gin should act differently in spite of the identity of the alcohol contained in them, it is easy to suppose that coffee and tea may have a different action in spite of the identity of caffeine and theine. But be the explanation what it may, the practical fact remains and must be attended to; for, though it may be of little moment to a person in health whether he delectates upon a cup of coffee or a cup of tea, or whether he prefers a glass of brandy and water to a glass of gin and water, it may be a very different matter to an invalid, and the successful issue of the case may even depend upon the attention which is paid to points of such seeming triviality as the choice of coffee and brandy in preference to tea and gin.

There is no question as to the necessity of ordering the habits in such a way as to save the strength as much as possible. There is no question as to the advisability of celibacy. There is no question as to the inadvisability of taxing the brain with severe study. But there is a question as to the correctness of the rule which is usually laid down with regard to bodily exercise. Arguing from the premises, the natural conclusion appears to be that, as a general rule, the muscles ought to be *rested* rather than exercised, and so far experience fully confirms this inference. More than once I have found a patient begin to improve when he became careful to avoid muscular fatigue; more than once I have known a patient begin to retrograde who began to try his strength too soon. Not long ago, I had a note from a medical gentleman, in which he told me that a patient about whom he had consulted me, had gone on very well so long as he had made a point of riding to his place of business, and that the fits had returned as soon as he had disregarded this direction.

2. The remedies which are found to be most serviceable in epilepsy are also such as might be anticipated from the premises.

The results of venesection in epilepsy are by no means such as to recommend a continuance of the practice; and every one who has personal experience in the matter, or who has made himself acquainted with the published experience of others, will readily concede this point. Nor is it easy to understand—now that the circulation is an established fact—how local depletion should be advisable if general depletion is inadvisable; and this the more, as there is every reason to believe that the occasional congestion in the head and elsewhere, and other fluctuations in the circulation, are only so many direct evidences of simple debility.

The results of the employment of purgatives as purgatives are no more satisfactory than the results of bleeding or leeching, and this is as might be expected. There is no plethora to call for such evacuations as is caused by purgatives; and there seems to be a special objection to it in the fact, that the fits are usually aggravated during the attacks of diarrhœa, which are not unfrequent in long-standing cases of epilepsy. Even aperients must be warm and aromatic, or they cause much depression and distress.

Tonics, on the other hand, have stood the test of experi-

ence, and the evidence in their favour has gone on accumulating continually. Many have been tried, but none seem so deserving of confidence as quinine and iron. The ammonio-sulphate of copper, the nitrate of silver, and the oxide of zinc, are strongly recommended by some; but I have never been able to satisfy myself that they are to be compared in value with quinine and iron. Herpin, who is one of the most recent writers on the subject of epilepsy, is very much in favour of the oxide of zinc, and says he has cured 26 out 31 cases by it; but this is not the conclusion which I should draw from 11 cases in which I have tried it and seen it tried.

The remedy, however, which stands foremost among the remedies which have rendered unequivocal service in epilepsy, is turpentine, and this fact furnishes an argument that stimulants will be required in epilepsy. It furnishes an argument to this effect, for on paying attention to the mode in which an epileptic is affected by turpentine, it is certain that the stimulant effects are more prominent than any others. Notwithstanding the evidences in its favour, however, the nauseous taste of the remedy, and the irritation which it excites in the urinary and generative organs, have always been a serious objection to its use; and the result has been, that comparatively few patients have had the resolution to persevere in taking it as long as was necessary for the insurance of permanent benefit.

Naphtha acts in a very similar manner to turpentine. In doses of half-a-drachm to a drachm it produces the same decided relief; but it is scarcely less disagreeable, and patients cannot be induced to take it for any length of time.

Camphor is also a very valuable remedy. In doses of two to three grains, either alone or in combination with quinine or iron, one or both, according to circumstances, it rarely fails to do good. Being given in the form of pills, moreover, it is less nauseous than turpentine or naphtha, and it has this peculiar advantage, that instead of irritating the urinary and generative organs, like turpentine, it exercises, or seems to exercise, a directly quieting influence upon these organs.

Chloric ether and Hoffman's anodyne also appear to be beneficial. I have given half-drachm doses of chloric ether, either alone or in combination with ammonio-citrate of iron, or quinine, or naphtha. Sometimes I have substituted Hoffman's anodyne in place of chloric ether; and sometimes, when the need of a stimulant has seemed very urgent, I have associated the two; but it has always seemed, that this form of ether was both less pleasant and less efficacious than the other.

The aromatic spirit of ammonia, either alone or in combination with ether, is also very useful at times, when an occasional and sudden stimulant effect was necessary.

Besides the stimulants which act from within, there are others which act from without, and of these the most important are counter-irritants.

The verdict of past experience is very much in favour of counter-irritants, and this verdict recommends itself to the judgment, though on different grounds to those on which it is given. After the preceding remarks, (remarks which are as fully borne out by the pathology of the cognate disorders, as they are by the pathology of epilepsy,) it is not easy to believe that counter-irritants do good by diverting irritation from a vital organ; but it is very easy to believe that they may do good by exciting inflammation. It is very easy to believe this, because the fits of epilepsy are frequently suspended by inflammation arising from injuries inflicted during the fits, or by idiopathic inflammation, and because all tremulous, convulsive, and spasmodic disorders are suspended under similar circumstances. Inflammation of the brain, for example, puts an end to the trembling of delirium tremens; the cutaneous inflammation of small-pox puts an end to the convulsions which attend upon the initial stage of collapse; and inflammation of the lungs or air-passages puts an end to the laryngeal spasm of hooping-cough. It is easy to believe, therefore, that counter-irritants may be beneficial in epilepsy, and particularly those kinds of counter-irritants which excite inflammation without producing any exhausting discharge; but I have had little experience in the matter.

Among the other remedies for epilepsy it is only necessary to mention the cotyledon umbilicus and tracheotomy.

With regard to cotyledon umbilicus it need only be said, that there is nothing in experience, and less in the simple itself, to warrant any hope, except that which arises from the exercise of the imagination of the patient. Epilepsy requires a stronger spell than an article which might be an ingredient in a salad. It may, perhaps, be coerced by revolutionizing the habits, and by calling in the aid of everything which can rouse the flagging energy of the vital powers, but not by inclining towards vegetarianism. It is true, that the cotyledon was tried by the late Dr. Graves, of Dublin, and that he speaks somewhat in its favour; but it failed in three of the six cases in which he tried it, and did doubtful service in the fourth; and in the remaining two it is by no means certain that it did the good which Dr. Graves is inclined to suppose. (*Dublin Quarterly Journal of Medical Science*, Nov., 1852.)

With regard to tracheotomy, it is less easy to come to an opinion, and this the more, as there is an insufficiency of evidence on the subject. Still it is evident, that this measure does not realise all the original expectations of Dr. Marshall Hall respecting it. It does not prevent convulsion. It does not always, or even usually, make the convulsion slighter. It does not prevent danger; for of the few patients upon whom the operation has been performed, three have died either in the fit or in connexion with the fit, and of the three the opening in the windpipe was free from all obstruction—at least in one. Under these circumstances, it becomes a question whether the supposed benefits of the operation are sufficient to counterbalance the associated inconveniences and dangers, even where (which rarely happens) the asphyxial symptoms are consequent upon spasmodic closure of the larynx,—and this question must remain in abeyance for the present.

As to the rest, it only remains to be said, that the accustomed rules of treatment must be applied to the correction of any special sources of exhaustion, and particularly to those which are peculiar to females.

LECTURES

ON

THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.

Licentiate of the Royal College of Physicians; Professor of Physiology and General and Morbid Anatomy in King's College, London.

Lecture III.

Office of the Vasa Aberrantia and Sacculi of the Ducts; they are not Mucous Glands—Gall Bladder—Glisson's Capsule—Its arrangement in Animals generally; it does not form an investment to the Lobules—Manner in which the mapping out of the Lobules is produced—Hepatic Vein.

Office of the Vasa Aberrantia and Sacculi.—The circumstances which I briefly alluded to in the last lecture appear to me to militate strongly against the notion of the vasa aberrantia being modified, and anastomozing mucous glands. They seem rather to point to the ductal nature of these curious channels; and I think it not improbable that they are really altered secreting tubes, and at one time formed a part of the secreting structure of the liver. As the portal vein becomes larger at the termination of intra-uterine life, it is not unreasonable to suppose that the hepatic tissue, close to it, would recede; and that the most superficial portion would become so modified, as to be no longer adapted for secretion. The cells would become altered, the ducts shortened and contorted, until the condition above described was produced.

In the very thin edge of a horse's liver, which was composed principally of fibrous tissue, I have been enabled to trace the gradual alteration of the ducts, and the ultimate complete disappearance of secreting cells. The ducts, discovered by Mr. Kiernan in the triangular ligament, in the pons hepatis, and in

other situations, are probably due to a similar change. To the sacculi the office of secreting the mucus which is found in the bile has been assigned; but from a careful examination of their arrangement, I cannot help doubting the correctness of this inference. Cavities opening into a tube, by a narrow neck, often not more than the $\frac{1}{3000}$ of an inch in diameter, seem hardly adapted for the secretion and pouring out of a highly viscid mucus. If these so called "glands," were the seat of the formation of mucus, one would not expect that injection would so readily enter them; again, the complicated and highly tortuous ducts, which Weber termed very properly "vasa aberrantia," possess no characters which entitle them to be looked upon as anastomozing mucous glands; they are most readily injected; their walls are much thinner than those of ordinary ducts. An abundant venous plexus surrounds the vasa aberrantia and the larger ducts. The bile in the larger ducts, by means of the sacculi, is brought much nearer to the vessels, than would be the case in simple tubes with thick fibrous walls.

In the rabbit they are very slightly developed. I have not seen them in the ducts of the fishes and reptiles which I have examined.

If these little sacculi were mucous glands, one would be led to expect that the bile of animals in which they were numerous would be more viscid than that of animals in which they were few in number. The bile of the rabbit, where these sacculi are almost absent, I have ascertained contains as much mucus as that of the pig, in which animal they are exceedingly numerous, and arranged entirely round the ducts.

It seems to me that we may regard these appendages connected with the ducts as diverticula, in which the bile may be retained temporarily, while it becomes inspissated, and probably undergoes other changes. In fact, we may look upon them as little gall bladders appended to the ducts.

The coats of the larger ducts are composed of condensed fibrous tissue; but there is reason for supposing that some of them at least contain a few muscular fibre-cells, although there is no evidence of a distinct muscular coat, at least in the human subject. In some fishes I have seen an internal layer composed of circular fibres, and an external coat of longitudinal fibres. In the human subject I have observed indications of a similar arrangement, but not distinctly marked.

The epithelium of the larger ducts is of the columnar variety. The cells are large and well-formed, usually exhibiting a distinct nucleus. They are frequently tinged with yellow colouring matter, and often contain yellow granules. In the smaller ducts, this epithelium becomes shorter, until, in the smallest branches, it approaches more nearly to the tesselated variety.

The small branches resulting from the division of the trunks in the interlobular fissures, or upon the surfaces of the lobules in the pig's liver, are composed of basement membrane, only lined with a single layer of epithelium. These small ducts may, without difficulty, be traced up to the secreting structure of the lobule, but the manner in which they are connected with the lobule, and the relation which they bear to the liver cells, has long been a matter of dispute among anatomists. This part of the subject will be better postponed until we consider the structure of the lobule of the liver.

Gall Bladder.—The gall bladder may be looked upon as a diverticulum of the hepatic duct. It lies, as you know, in a fossa underneath the liver. It is of a pear shape, and its fundus is directed downwards and forwards; it terminates in the cystic duct, which is about an inch in length. The hepatic duct, leaving the liver by the transverse fissure, passes downwards, and soon joins the cystic duct at an acute angle, to form the ductus communis choledochus, which is about three inches in length, and lies between the layers of the gastro-hepatic omentum. After coming into close proximity with the pancreatic duct, the common duct enters the coats of the intestine with the latter, and passes obliquely between them for three quarters of an inch. The ducts open by an orifice common to both at the junction of the descending and transverse portions of the duodenum.

The mucous membrane of the gall bladder is thrown into reticulated folds, which form the boundaries of numerous polygonal depressions, so that upon its internal surface it presents a honeycombed appearance. It is highly vascular, and is covered with columnar epithelium. The folds are prolonged into the cystic duct, where they are arranged in a crescentic manner, their general direction being that of a spiral, and they have been compared to a spiral valve. I have already described the peculiar arrangement of the vessels of the gall bladder. The cystic artery is derived from the right division of the hepatic, and the veins empty themselves into the vena portæ. The lymphatics are very numerous. The greater part of the thickness of the walls of the gall bladder is composed of fibrous tissue, but there also exists a layer, in which muscular fibre-cells, taking partly a longitudinal and partly a transverse direction, are found. The human gall bladder is capable, under ordinary circumstances, of containing about one ounce of fluid; but it undergoes great alterations in volume, and in it the bile becomes inspissated, and probably undergoes other changes.

The gall bladder is absent in many fishes; in pigeons, toucans, and some other birds; in the elephant, stag, horse, and tapir; but it is present in the ox, sheep, and antelope. It is always found among reptiles. The reason of its absence in the animals above alluded to is not yet satisfactorily explained.

Glisson's Capsule.—This structure has been described as a most important and essential constituent of the liver. Continuous with the proper capsule of the organ externally, it is said not only to form a sheath for the large vessels as they lie in the portal canals, but to be prolonged with them into the ultimate parts of the gland, and even to form for each lobule a proper investment.

It is an important point to ascertain if the arrangement of this areolar tissue in the liver really differs from that found in other glandular organs.

Mr. Kiernan showed that, in the smaller portal canals, Glisson's capsule did not completely invest the vessels, but was only to be found upon that side of the vein on which the duct and artery were situated.

Most anatomists have failed to demonstrate a trace o areolar tissue in the lobules of the liver. Occasionally, a few fibres of a structure like fibrous tissue may, undoubtedly, be observed in uninjected specimens; but such an appearance is produced by physical alterations of the structures of the lobule in preparing the specimen, or it is the result of disease. In the lobules of the livers of all the animals which have fallen under my notice, it was impossible to demonstrate any fibrous structure whatever.

In the *interlobular fissures* of the human liver, and of others allied to it in structure, it is not easy to convince oneself of the existence of such a structure, and Bowman, Henle, and Vogel have altogether failed to detect any areolar tissue in this situation in the human liver.

Between the capsules of adjacent lobules in the pig's liver, the elements of areolar tissue undoubtedly exist in small quantity. This capsule can be easily demonstrated; its contents can be washed out. It is composed of delicate fibrous tissue quite distinct from the areolar tissue found in the interlobular spaces and portal canals. In the latter situation the ordinary elements of areolar tissue, white and yellow fibrous tissue, and not unfrequently adipose tissue, are met with.

We have, however, seen in what important particulars the arrangement of the lobules of the pig's liver differs from that of other animals.

In the human liver, although there is a considerable quantity of areolar tissue surrounding and adhering to the large vessels, at the point where they enter the liver, and in the larger portal canals, this gradually becomes less, and is, at last, quite lost as we approach the smaller portal canals.

The quantity of this areolar tissue (Glisson's capsule) varies very much in different animals. In the human subject it is abundant in the transverse fissure and large portal canals; but in the rodent animals which I have examined, it seems reduced to a minimum (rabbit, rat, mouse). In the seal it is sparing in quantity.

There can be no doubt of the presence of much areolar tissue in the large portal canals of the human subject; but there are, nevertheless, other structures imbedded in this, such as lymphatics and vasa aberrantia, all of which would be included under the head of Glisson's capsule by a casual observer. In the horse, the external coats of the large duct and portal vein are incorporated at the point where they touch. In the rabbit very little areolar tissue is found to accompany or invest the vessels of the liver. This may be readily demonstrated by injecting a rabbit's liver with plain size. The whole liver becomes transparent, and the course of the small veins distended with size can be most readily traced. In this

animal the capillaries of the liver are large, and injection runs into them very readily. One cannot fail to be struck by the almost total absence of anything which can be described under the indefinite term "fibrous tissue" in this beautiful liver. A little condensed areolar tissue is seen around the largest veins, external to which ramifies an abundant plexus of lymphatics. All the vessels are clear and well-defined. The artery can be readily separated from the portal vein, and neither it nor the duct are bound up with the vein in a fibrous capsule. The larger ducts can be readily distinguished from the other vessels, and their small branches, if not injected, can be traced for a long distance by the characteristic epithelium in their interior. In the smaller portal canals the veins and ducts are entirely destitute of any external coat, but their course may be traced very distinctly.

When the ducts of a liver (human, rabbit, seal, and other animals,) have been injected with Prussian blue, and the portal vein distended with plain size, a transverse section of a portal canal exhibits no structures but the distended veins and ducts, with branches of the artery. The external coat of the large vein is well seen, and consists of a thin layer of condensed areolar tissue; but the duct and artery are not invested with it. In the small portal canals the vein is quite destitute of this external coat, and it lies in immediate contact with the basement membrane of the peripheral portion of the cell containing network, or with that of the finest ducts, which often form a plexus around it. In this diagram, which represents a transverse section of a portal canal of the seal's liver, the smaller ducts, which are only imperfectly injected, are seen passing round the artery and portal vein, and seem to enclose the artery and duct, as it were, in a sheath, connected with the coat of the portal vein. The real nature of this apparent connecting sheath is clearly shown in the preparation from which the diagram was taken.

The difficulty of deciding positively upon this point, however, in every specimen submitted to examination, is, perhaps, greater than you would be led to suppose from what I have just observed; for, by manipulation in uninjected specimens, the small arteries, veins, and ducts become so stretched and torn, that it would be impossible to distinguish them from fibrous tissue. On the other hand, it might be urged, that in injected specimens the fibrous tissue is so compressed by distended vessels as to be almost invisible. Still in this case, in numerous places where these vessels were slightly separated from each other, one could hardly fail to see it if it existed.

The areolar coat of the vessels and ducts is not prolonged upon the small branches which are given off from the trunks in the larger portal canals; and, from a careful examination of the arrangement and connexions of the vessels in the portal canals of many animals, I have been unable to observe anything in the distribution of the areolar tissue around the vessels of the liver differing from its arrangement in many other situations. The vessels of the kidney and of other glands, as is well known, are invested at their entrance, like those of the liver, with much areolar tissue, which is gradually lost as the vessels approach the secreting portion of the gland.

Manner in which the mapping-out into distinct portions is produced.—The cause of the mapping-out of the lobules of the liver in all animals has been considered to be due to the extensive distribution of Glisson's capsule; but in these situations, as I have mentioned before, other observers as well as myself have altogether failed in their attempts to demonstrate such a structure, with the single exception of the pig. The fibrous appearance in the interlobular spaces of the uninjected livers of animals generally, is due to the collapsed state of small branches of the vein, artery, and especially of the duct, which are very numerous. If the portal vein be injected with plain size, such an appearance is no longer observed.

The mapping-out is really caused by the different appearance of the little elementary portions of liver which are made up of the secreting elements of the gland, and the intervals between these, in which there are no liver-cells. In these intervals the portal vessels and duct reach the circumference of the lobule, and become continuous with the capillaries and secreting structure. These interlobular spaces are enormously increased in extent in certain cases of disease where the liver-cells at the margin of the lobule have degenerated. This increase, of course, takes place at the expense of the secreting structure of the lobules, which in a section are seen to be much diminished in size.

I have a specimen of diseased liver in which the interlobular spaces are as wide as the lobules. That this increased extent is due to an alteration in the secreting structure of the lobule is certain, because the network which originally contained cells can be distinctly traced, and in many situations contains biliary particles. Such a specimen would have been formerly described as produced by a thickening of Glisson's capsule. I hope, however, to recur to this subject and to speak of some other interesting morbid changes in the minute structures of the liver upon another occasion. The interlobular spaces then are occupied only by branches of the vessels and duct which lie in close proximity; no structure corresponding to the description of Glisson's capsule is to be detected in this situation.

Hepatic Vein.—The radicle of the hepatic vein (intra-lobular vein) is always seen at a point midway between two portal veins, or in the centre of the lobule in the case of the pig. The capillary meshes are slightly elongated as they approach the hepatic vein, owing to their convergence towards this vessel, the smallest trunk of which is larger than the smallest branch of the portal vein.

If the trunk of an hepatic vein of moderate size be laid open, numerous small openings will be observed upon its interior. These openings correspond to the centres of the lobules which surround the trunk of the vein. It is by reason of the entrance of these minute intra-lobular branches into the large trunk of the vein that the latter remains patent when cut across. The small radicles of the hepatic vein receive capillaries on all sides, quite down to the point where they emerge from the lobule; and these small intra-lobular veins, in many instances, open, not into a vessel somewhat larger than themselves, but pour their blood at once into a large trunk. In these points the arrangement of the portal trunks contrasts remarkably with that of the branches of the hepatic vein.

The reason of this difference is clear. In no other manner, consistent with the compact nature of the mammalian liver, than that which really exists, could a part of the portal blood be equally distributed to, and made to pass through, the extensive capillary system existing in the lobules. After having passed through this plexus, the blood is poured into the veins, and carried away from the liver in the most direct manner possible.

In the seal, the capacity of the branches of the hepatic vein within the liver, is much greater than in other animals, an arrangement which has reference to the accumulation of blood in this organ, and in the great venous sinuses into which the trunk of the vein is dilated, when the animal remains for some time under water. Accumulation of the blood, in these branches, to an improper extent, is prevented by a beautiful arrangement to which I must briefly direct your attention. This was first noticed by Mr. Kiernan, who describes the external coat of the hepatic veins as composed of circular fibres, and he gives a drawing of a vein slit open. Upon making a section of a small branch of the vein which has been injected with plain size, it is seen to exhibit a beaded appearance, or to be partially divided into a number of small chambers, by means of septa. At the situation of each partition may be very distinctly seen a circular band of muscular fibre-cells, which are enclosed at intervals in the lax fibrous coat. It is no doubt the office of these fibres to prevent undue distension, to equalize the accumulation of blood in the branches of the vein, and to prevent undue pressure upon the secreting structure of the lobule, which is separated from the vein by so slight a distance as is here shown. The arrangement of these fibres is represented in this diagram, and at these points are seen the muscular fibres.

Occasionally anastomosis takes place between the small branches of the hepatic vein. One of the most remarkable is represented in this diagram, which is copied from a preparation of the human liver.

In the next lecture I propose to refer to the arrangement of the most minute hepatic ducts, and the manner in which they are connected with the cell-containing network of the lobule; but it will, I think, be better first to describe the method which I have employed in preparing the specimens which I shall have an opportunity of showing you under the microscope.

(To be continued.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

CASE OF HÆMATEMESIS

IN A PRIVATE OF THE 10TH REGIMENT, BOMBAY NATIVE INFANTRY.

By H. PARKER LAURENCE, Esq.,
10th Bombay Native Infantry.

A spare, weak looking man was brought to the Hospital on the evening of the 29th of August, 1855, in a dooly, having, as was stated by many who were on the spot, thrown up a large quantity of blood on the parade-ground. Blood of a crimson colour, and mixed up with sputa, was passing in a stream from his mouth, when he came into the ward, and to all appearance he had been exhausted by the discharge. After waiting a short time to see if the bleeding would subside, and giving him frequent and small draughts of cold water, and when his cough and oppression in breathing had somewhat abated, I gave—

Acid. sulphuric. dilut. ♏ xv., tinct. opii ♏ x., mucilag. ʒij., aquæ ℥j.

This was retained, and did good, for very little blood was thrown up afterwards; he continued, however, to expectorate blood and sputa for some time, and was very uneasy, though not in pain; his pulse was small and thready. To have—

Acid. sulphuric. ♏ x., tinct. opii ♏ v., aquæ cinnamon. ʒj. every hour until he has taken 45 minims of the tinct. opii.

9 p.m.—Has had no more bleeding, only a little sputum is occasionally thrown up, tinged with blood. No further medicine to night, unless the bleeding returns, when the above prescription is to be given as before; to have frequent sips of cold water.

30th.—The cough alone troubles him; has now and then ejected bloody mucus; passed a very good night. To have—

Acid. sulphuric. dilut. ♏ x., tinct. hyoscyami ♏ xv., aquæ cinnamon ℥j., every second hour, and confined to a sago diet, with cold diluents, such as rice water and lime juice.

6 p.m.—Did not prescribe.

31st.—Cough not so troublesome, but the breathing is a little oppressed, and the heart's action a good deal accelerated; skin in consequence warm and dry; expectoration not so free; pulse hard and jerking. Omitting former medicine, to have

Tinct. scillæ ʒss., tinct. digitalis ♏ x., tinct. hyoscyami ♏ xv., solut. antimon. potass. tart. (gr. ¼ to the ʒj.,) aquæ ℥iss every four hours; diet as before.

September 1.—Less cough; no blood; better every way. Continue the mixture, adding to it mucilage ʒij.; give also castor-oil ℥i. now; diet the same.

2nd.—Improving; continue the above.

3rd.—The mixture to be given every third hour.

4th.—Quite free from cough and spitting; the mixture as before.

5th.—Begin, Infus. cinchonæ ℥i., acid. sulphuric. dilut. ♏ vii., quinin. disulphatis gr. iij., and give this three times a-day. From this date up to the 11th, there was no change in the treatment, and he was rapidly getting well; was discharged well on the 15th. Not being certain of the cause of the hæmorrhage in this case, I could only treat the symptom itself. A very careful examination, oft repeated, gave no indication of heart disease, or of any abnormal lesion in the chest. The man continued to do well up to the 10th December last, when he was again admitted for a pain felt over the region of the liver. The pain seemed to be very circumscribed; was directly near the left lobe; no pain or uneasiness felt on percussion round about the part. There was slight pain and difficulty of breathing, and the pulse somewhat accelerated. One dozen eeches were at once applied over the seat of pain, and the ollowing given at bed-time—

Calomel gr. iij., opii gr. ½, pulv. Jacobi, gr. ij.

December 11.—This morning vomited about half-a-pint of pure pus; pain nearly gone; easier in every respect. I now thought proper to begin a course of tonics and port wine, under which treatment he is rallying fast, and in the course of a few days I purpose giving him the benefit of change of air.

Nusseerabad, January 7, 1856.

A CASE OF RHINOPLASTIC OPERATION, WITH REMARKS.

By NATHANIEL WARD.
Assistant-Surgeon to the London Hospital.

(Read before the Hunterian Society, March 28, 1855.)

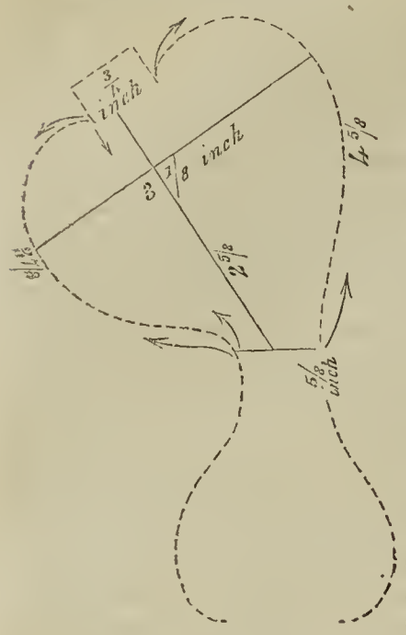
A healthy man, with partial destruction of the nose, aged 30, who had alternately followed the occupation of Chemist, Medical Assistant, and sailor, came under my care, in the London Hospital, at the end of September, 1854, with the object of having the rhinoplastic operation performed, as he could no longer tolerate the inconvenience of using artificial noses, every variety of which he had had recourse to, with a variable amount of annoyance.

The nasal bones, and integument over them, were much depressed, and slightly below the level of the integument of the cheek, the nasal aperture was reduced to an oblique chink, bounded on the right side by a small remnant of the right ala, and was common to either nostril. The little finger could be inserted into it, and after having been passed in as far as the first phalanx, was obstructed by the remnant of the septum. Unseemly cicatrices existed on the face, around the stump of the nose, and on the latter. The lower lip was tumid, and depressed below its natural level, resting, when the mouth was closed, as it were, on the lower lip. The patient regarded himself as hideous, and no one who saw him, even casually, could well be of a different opinion. He had, in fact, in consequence of his acquired deformity, been obliged to leave England, and gain a precarious and peculiar livelihood abroad.

He attributed the partial destruction of the nose to a severe attack of erysipelas supervening on typhus fever, which he contracted while attending a patient in his Medical capacity. This happened seven years ago. He had contracted a chancre a year before that, but as he had never had secondary symptoms, he could not regard the affection of the nose as in any way connected with syphilis.

At the time of admission, the health of the patient was remarkably good, and after he had remained quiet for three weeks, the operation for the formation of a new nose was undertaken. The day previously, the hair at the root of the stump of the old nose, which was copious, and united on either side with the eyebrows, was shaved carefully away for the extent of half-an-inch, and a few of the hairs of the right eyebrow, were cut close off with the scissors. The operation was performed on October 13, and before the patient was brought into the theatre, the outline of the flap to be brought down from the right side of the forehead, and that of the groove on the stump of the old nose intended for the reception of its circumference, was made with ink, traced round a model of thick white leather, the back surface of which was covered with soap plaister, so as to adhere to the forehead. The patient was placed in the horizontal position, on a common hospital bed, the feet being where the head usually lies. The head was slightly raised, with a pillow placed under it. I seated myself behind the man, and when he was fully under the influence of chloroform, the outline of the frontal flap was made with a scalpel with a straight edge, and a slightly curved back. The incision commenced on the right side of the proposed nasal pedicle, and was carried round as far as the right border of the projection, in the centre of the outlined circumference. The left side of the pedicle was next incised from before backwards, and the incision continued along the left part of the circumference, and terminated at the left extremity of the peripheral projection. The two vertical borders of the latter were then united by incising the transverse line between them. The flap was reflected from the right to the left side, and was cut off close to the pericranium, which latter was not interfered with. A part of the orbicularis palpebrarum of the right side, and the fleshy and tendinous part of the occipito-frontalis in relation locally with the flap were reflected with it.

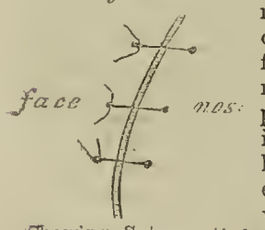
The circumference of the flap presented a straight border, the knife, while it was being made, having neither been inclined inwardly nor outwardly.



The flap in form resembled the ace of spades on playing-cards, the only difference being, that the point of the figure was replaced by a pedicle. The projection in the circumference for assisting in the subsequent formation of the nasal column was $\frac{3}{4}$-inch in width, and $\frac{3}{8}$-inch in length. The nasal pedicle was in width $\frac{1}{16}$th of an inch less than the part intended to assist in the formation of the columnar appendix. The widest part of the flap was $3\frac{1}{8}$-inches. The length from the root of the pedicle to the root of the columnar appendix was $2\frac{5}{8}$-inches. The left half of the circumference, measuring from the left of the root of the pedicle to the left of the columnar appendix, was $4\frac{5}{8}$-inches. The right side, measuring from corresponding points, was $3\frac{7}{8}$-inches. The frontal flap having been completed, the groove on either side of the stump of the nose was then made, and the skin was first divided perpendicularly to the surface, and reflected outwards, together with the subjacent soft parts, to the extent of full $\frac{3}{8}$ of an inch. The sides of the stump of the nose were to a similar extent deprived of cuticle, the centre of the stump not being interfered with. The right groove was continued into the right part of the circumference of the frontal flap, as practised by Lallemand, and in a recent case by Mr. Borlase Childs. An interval of $\frac{1}{8}$ of an inch separated the upper extremity of the left nasal groove from the lower extremity of the left border of the flap. The first steps of the operation were thus finished. The patient was allowed to rally from the effect of the chloroform, and remained lying on his back in the theatre for two hours, when all bleeding had ceased, and the raw surfaces had put on a glazed appearance. A piece of rolled oiled lint was now placed on the old stump, and the frontal flap turned on its pedicle, (which, in consequence of the continuity of the right nasal groove and right part of the border of the flap, was effected without the slightest evidence of strangulation,) and brought down over the lint, and the circumference united with the raw surface surrounding the stump of the old nose. The lateral position of the flap itself much facilitated also this twisting. Two twisted sutures were used on the right, and one twisted suture on the left side.

Interrupted sutures were also used, several of them having been applied with as small curved needles as possible. The knot of the sutures was made so as to be in contact with the facial point of entry of the needles, away from the apposed borders of the frontal flap and nasal grooves.

Diagram 1.



Showing Sutures tied at facial side of proposed line of union.

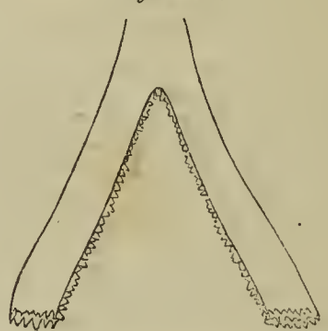
In consequence of the skin on the nose and on the forehead having been divided quite perpendicularly to the surface, a very accurate adaptation was the result; and, in consequence of the soft parts subjacent to the skin that had been incised round the stump of the nose having been separated outwards for the extent of $\frac{1}{4}$ of an inch, puckering inwards was avoided. During the passing of the sutures through the new nose bleeding occurred very freely. A piece of oiled rag was now placed in the frontal wound, and over this a square piece of lint, which also covered over the face, and was retained in position by a piece of strapping. The patient was then placed in bed, the room having been well warmed the day before; and it was ordered to be kept at a temperature agreeable to the feelings of the patient. On the morning of the second day after the operation the new nose appeared to have united one of the twisted sutures on the right side, which was causing a little inflammation below the eye, was removed. On the third day the remaining needle on the right side was taken away. The patient was in good condition, having on this day eaten a mutton-chop, which he said did not satisfy him, and drank a pint of porter; on the two previous days he had taken some sago and some fish. On the fourth day the dossil of lint in the nasal cavity was taken away; the Glover's needle on the left side, and one suture from the upper part of the right side. The patient was ordered another mutton-chop. A fresh oiled dossil of lint was put in the nose, the purulent discharge from which was tolerably free and healthy. Another suture was taken away from the lowermost part of the left side of the nose, and on the eighth day all the sutures had been removed. On the 9th the fold of lint which covered over the face was removed. On the 10th, the granulations on the forehead being very exuberant, dry lint was substituted for the strapping.

From this period to the end of the seventh week after the operation, this local plan of treatment was adopted in reference to the wound in the forehead, dry lint being daily applied, and nitrate of silver used now and then to keep down exuberant granulation. Contraction of the nose took place to such degree that, at the end of this period, the projection that had been made in the circumference of the frontal flap, and which after the operation was only two lines from the prolabium of the upper lip, had become retracted towards the nasal cavity, the granulations on its posterior surface having blended with those on the posterior surface of the body of the flap in contiguity with it. In consequence of this, a thick cushion had, as it were, formed on the apex of the nose, which was on a line with the original aperture at the base of the old nasal stump, or rather at its lower part. The remainder of the nose had contracted to a similar extent. During this contraction a tendency to lateral bulging took place, and this was, in a great measure, counteracted by the application of collodion, and the use of an oiled dossil of lint, and latterly of a piece of waxed bougie, moulded in the form of a prism, placed as a support between the stump of the old nose, and the body of the new. The portion of the new nose, intended for the lateral boundaries of the nostrils, had assumed a thin narrow outline, in consequence of the lower part of the superficial surface of the flap having been drawn inwards towards the deep or cicatrizing surface, as the result of the contraction of the granulations on the latter and on the lower border of the flap.

Diagram 2.

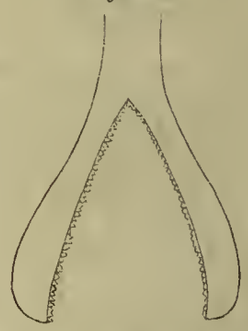
Showing retraction of projection at the tip of the nose, to form cushion for subsequent reception of columna.

Diagram 3.



An imaginary section of the nose, showing the condition of the granulations on the surface of the organ before contraction of them had commenced.

Diagram 4.



An imaginary section, showing the condition of granulations some time after the operation, when, in consequence of their concentric contraction, the lower border of the nose had assumed a thin narrow outline.

On December 1, the operation for making the septum was performed, seven weeks having elapsed since the first operation. The patient was placed in a recumbent position, and not under the influence of chloroform.

The new nose was drawn slightly upwards and backwards by means of an aneurism needle, and a triangular portion of the lower part of the stump of the old nose, immediately

above the nasal septum, was removed. This was done in order to enlarge the nasal aperture, which otherwise, when the septum had been raised from the upper lip, would have been all but occluded. A piece was next scooped out of the apex of the new nose, and was circular in outline. The septum was then formed from the upper lip in the following manner: —The lip being made tense by an assistant, a straight-edged scalpel, with a curved back, was passed through it, from the mucous to the cutaneous surface, and the lip divided vertically downwards, through the prolabium, about one-eighth of an inch to the left of the median line. The right part of the lip was then seized by a pair of forceps at the lowest part of its incised border, and cut through, in a similar manner, one-eight of an inch to the right of the median line. Thus, a piece of the upper lip, one-quarter of an inch broad, was detached, and the mucous membrane of the mouth having been incised at its angle of reflection from the lip to the jaw, so as to allow of its being well raised, the prolabium was cut off obliquely, from above downwards, from the partially detached piece of lip, and the extremity of the latter applied in close contact with the raw surface in the tip of the nose. This apposition was maintained by a needle passed through it and the nose, and by the twisted suture. The parts of the divided lip had been previously approximated by two large and one small twisted sutures, the latter applied immediately below the part of the lip intended for the septum. On the third day after the operation, the two upper needles were removed from the lip, together with the thread confining the septum to the tip of the nose, the needle being left; the mucous membrane of the septum had slightly sloughed below, having, in consequence of the swelling of the septum, become constricted by the upper twisted suture. On the fourth day, the lower needle in the lip, and the needle through the nose and septum were removed. The septum appeared healthy, and in firm union with the nose, and it was supported with a piece of wet lint and oiled silk on the cheeks. In the evening, about seven o'clock, hæmorrhage came on without any perceptible cause, and lasted for about six hours; so that the patient must have lost two or three pints of blood. It subsided gradually, and ultimately stopped, after cooling the room, the sitting position of the patient in bed, ice over the face, and removal of coagula from the nasal cavity, the syringing it out with ice-cold water, and the final plugging of the left side with a dossil of lint dipped in oil of turpentine. He was ordered lemonade to drink; ♏ xv. of oil of turpentine in mucilage, ter die. The porter he had been taking was omitted.

The patient went on uncommouly well from this period without any recurrence of hæmorrhage; collodion was daily applied to the sides of the nose and to the septum, which latter was by this means held steadily in contact up with the tip, and contracted daily. On the 23rd day after the bleeding a severe attack of erysipelas commenced, involving the forehead, nose, and sides of cheeks. It appeared to commence on the right side, just by the middle of the line of union between the nose and the cheek, and to take its starting point from a small ulcerated opening, which had off and on healed and broken out again, giving exit to pus, without any apparent reason. On the supervention of erysipelas, the pulse was about 110, full and compressible; the bowels had not freely acted, pain in the limbs and back was complained of, and the tongue was rather foul. A warm bath in the evening, a calomel and rhubarb powder, and the application of the ætherial solution of nitrate of silver were prescribed. On the following day the bowels having freely acted, effervescing medicine with 5 grains of ammonia in excess, sherry and soda-water, beef-tea and sago, morphia at night-time, and a blister behind the neck were prescribed with success. Having subsided on the fourth day, the erysipelas re-appeared on the 6th after the first attack. Two grains of quinine ter die, ℥xij. of port wine were substituted for the sherry, and at the end of forty-eight hours the second attack had gone off. He was kept on this treatment until Jan. 13, when he left the Hospital for a time. The little opening in the right side of the nasal cicatrix had not healed. The frontal wound had nearly healed, and the right eyebrow had become somewhat drawn upwards. The cicatrix in the forehead became complete on the twenty-third day after he had been in the country, and three months and three-quarters after the performance of the operation. He gave his head a knock, however, and this ulcerated again slightly.

Having been at the sea-side for six weeks, the patient was re-admitted on March 2, and the third part of the operation was undertaken. This consisted in a partial division of the pedicle of the root of the nose, the separation by the knife of the upper part of the left border of the nose, which, in consequence of the twist, had been drawn inwards, and united with the right border. This border having been detached, was united to the soft parts which bounded the upper part of the left side of the circumference of the old nose, in a line, as nearly as possible, with the line of union of the lower part of the left side of the nose. In consequence of the puckering which the detached left border presented, two small triangular pieces were removed above and below, in order to render the adaptation more accurate. Two small harelip-pins, and several sutures, were used, an interval of between two and three hours having elapsed prior to their application, in order to allow of all hæmorrhage ceasing. Erysipelas supervened the day after the operation; a similar plan of local and constitutional treatment was had recourse to, as on the prior attacks; and it went off on the third day. The sutures and harelip-pins were taken away; the latter on the fourth, the the former on the fifth day. Cicatrization was complete in about a fortnight.

Remarks.—In the recital of the preceding case it will be remarked, that in order to ensure a favourable termination to the operation, the details connected with the latter were minutely attended to; and that the dimensions of the frontal flap were sufficiently large to admit of such an amount of subsequent contraction as to leave, as the result of what in the first instance appeared an enormous exaggeration, a nasal organ which might ultimately come within the range of recognized dimensions.

The sedulous attention to small points in the different stages of a rhinoplastic operation has been dwelt on with more or less force by different writers on the art of nose-making. I am, however, unacquainted with any English writer who so forcibly and clearly expresses himself on the subject as Mr. Skey, and he well observes, that "there is no operation in Surgery that requires more calculation, and more careful study than this." The Surgeon should pay many visits to his patient for this express purpose. No execution can be good the design of which is imperfect. It exhibits the height of ignorance of the taliacotian art, for a man to take the knife in his hand with the intention of supplying so serious a loss as the human nose, who has not planned his operation in all its points with the utmost precision, and determined on the minutest result. Without such care failure is certain, and the result inevitable; the patient is disappointed, and with reason, and the art is justly stigmatized as ineffective."

On some of the details of rhinoplasty, not particularly alluded to by Mr. Skey, but either noticed by Dieffenbach, Liston, and others, or the result of one's own consideration of the subject, I shall make a few remarks:—Thus, in bringing into apposition the circumference of the frontal flap and border of the nasal groove around the nose the application, not only of sutures, but also of hare-lip pins was had recourse to, and, I think, with manifest advantage, serving to keep more steady the parts in relation to each other than could have been the case had sutures merely been made use of. It will be observed further, that, in this instance, the sutures and the threads round the hare-lip pins were tied *at the facial side of the proposed line of union* of the applied parts; so that the pressure from the knots was exerted on that part of the integument which was the more vital, and therefore the more capable of sustaining it without injury, and in a position away from that proposed line of union, in order that healthy linear cicatrization might not be in any way interfered with. In making the outline of the flap in the forehead and the groove around the stump of the old nose, it appeared to me, that it would be better to hold the knife perpendicularly to the surface than to slope it inwards, with the view of giving the frontal flap a bevelled circumference. By the proceeding thus adopted, most accurate adaptation of the parts, without puckering, resulted, and the line of cicatrization became slighter and smoother than would, I imagine, have occurred had the border of frontal flap been bevelled off at the expense of its lower surface.

The cessation of bleeding from the raw surfaces was a point most carefully attended to, prior to bringing them into contact; and in undertaking this and similar operations, too much stress cannot be laid on the paramount importance of

taking this precaution, without which the remaining steps of the proceeding, however carefully and skilfully conducted, may be followed by an issue mortifying to the Surgeon, and, in more senses than one, mortifying to the patient. "The Surgeon," says Mr. Liston, "should be in no hurry to fix the flaps; for union is most likely to occur when bleeding has ceased, and the edges of the wound have begun to assume the glazed appearance which immediately precedes secretion;" and Mr. Skey, in his account of this operation, has done well to italicize his remarks in reference to this matter.

As regards the operation of nose-making generally, it appears to me that it should be divided into three stages, each stage being performed at distinct periods, as was done in this instance: the first stage consisting in the formation of the frontal flap, and its adaptation to the stump of the old nose; the second, in the formation of the septum from the upper lip; and the third, in the division of the nasal pedicle, and its accurate adaptation to the parts beneath and to the side of it. I form this opinion from the following considerations:—When the nasal septum is not made in the first instance from the projection in the circumference of the frontal flap, this projection need not be so broad or so long; its only object then being to form, by its subsequent contraction and organic union with the deep-seated surface of the body of the flap, a cushion at the tip of the nose, for the reception, when excavated, of the columna brought up from the lip. Two advantages are gained by this proceeding:—1. A large body of flap can be taken from the forehead, without encroaching on the hairy scalp, which, in cases of large facial and small frontal development, is, of course, a matter of some importance. 2. Advantage consists in greater facility being afforded for uniform support to the nose, in consequence of the easier introduction of lint, or other dressings, beneath it, than could occur if the nasal cavity had, in the first instance, been divided into two portions. The formation of the septum or columna from the upper lip, as practised by Liston, Von-Ammon, Fergusson, Erichsen, and others, constituting the second stage of the operation, is performed at a time when the body of the new nose has materially contracted, and become more vitalized than at first.

Apart from these considerations, the formation of the septum from the upper lip at a period some weeks remote from the formation of the body of the nose, accomplishes not only the more accurate division of the nasal cavity into two parts, but remedies the deformity of the upper lip which usually obtains in cases of deficient nose, and which consists in an unnatural fulness, depression, and elongation of it, in consequence of the destruction of the original supporting columna by disease or otherwise. Liston has particularly directed the attention of the Profession to this point, and I quite agree with him in considering that the formation of the nasal partition from the upper lip is a great improvement on the operation as performed originally in this country by Carpue and other Surgeons who followed him and acted up to his directions.

In reference to the change that takes place in the colour of the mucous membrane on the lower surface of the nasal septum when the latter has been formed from the lip, one would feel disposed to conclude, from the perusal of Liston's account, that "it readily assumes the colour and appearance of integument after exposure for some time." Such has not been the case up to the present time, in this instance, an interval of more than five months having elapsed without any change in the tint of the under surface of the column having occurred. Should the rosy hue still continue, a sweep of the scalpel would soon correct the peculiarity.

The column having become firmly united, and a space of time varying according to circumstances having elapsed, the third part of the operation should be had recourse to. In performing this it must be borne in mind, that on the division of the nasal pedicle, the original supply of blood to the new nose is cut off. It must be obvious that there would not be so much chance of the organ suffering from the deprivation of blood after the formation and complete vascular connexion of the septum with it, as there would be if the formation of the septum and the division of the pedicle were made at the same time, as usually recommended. On this ground I may venture to trace, to a certain extent, the immunity which the nasal organ, in this instance, enjoyed from any untoward result, after the severe attack of erysipelas which the patient unfortunately experienced on the day after its performance, and which affected the head, neck, and face, together with its new appendage.

Independently of the above reasons for dividing a rhinoplastic operation into three stages, it must be remembered, that in Hospital practice it is an advantage in every way, particularly in vitiated states of the atmosphere, not to do too much at a given time in an operation that can be conveniently divided into different stages. The reasons for the exercise of such caution need hardly be alluded to, as they must naturally suggest themselves to every reflecting Surgeon. Thus, in this case it was deemed expedient to send the patient to the sea-side for six weeks, in order to recruit his health prior to the performance of the last portion of the proceeding, which was ultimately had recourse to when his condition had approximated the state he was in when the first stage was performed.

Perhaps the most striking feature in the progress of this case is, as it has been shown to have been in other instances, the amount of contraction which has taken place in the new nose. The variability of the amount of contraction in different cases is difficult to be explained on general principles. Mr. Skey relates an amusing anecdote on this subject, prefacing his recital with the following remark:—"It will occasionally happen, after some days from the day of the operation, that the new structure begins to lessen in size, and continues to diminish till it becomes almost absorbed. My experience in nose-making, though not small, is not sufficently great to enable me to explain this fact, whether owing to the small size of the stalk, or to the want of general activity in the circulation; but such is the case.

"I had at one time two cases of rhinoplastic operation in St. Bartholomew's Hospital—a young man and woman. They occupied two opposite wards on the same floor, became much interested in each other's case, and exhibited some sentimentalities which led to an offer of marriage by the man. The girl had undergone the operation with success,—the issue of the man's case was prospective. The girl did me the honour to make me her confidant, and to ask my advice. I told her to wait the result on the other case. She did so; and finding the new structure to have undergone the change I have alluded to, she declined further intimacy."

In reference to this irregular amount of contraction my patient has informed me that when he was in Batavia he had an opportunity of seeing a middle-aged man who had been operated on by a Dutch Surgeon. The nose, shortly after the operation, appeared of tolerable size, but at the end of two or three months had become flat and on a level with the face, tight as a drum.

To allow for any average amount of contraction that might occur in the present case, the dimensions of the artificial nose appeared for the first few weeks extraordinary and astounding; and gave rise to some misgivings on the part of my colleagues and myself as to the subsequent adequate contraction of the organ. In the event of such not having occurred, the individual would certainly have been in the ludicrous plight of the stranger with the exuberant nose, so humorously described by Sterne, and who, on his journey from the promontory of Noses through Strasbourg to Frankfort, created such an uproar of curiosity as even to have roused the inhabitants from their devotions, and made the city like a swarm of bees, men, women, and children flying here and there—in at one door, out at another—this way and that way — longways and crossways—up one street, down another street—in at this alley, out at that, saying, Did you see it? Did you see? Did you see it? Oh, did you see it? Who saw it? Who did see it? For mercy's sake, who saw it?

The advantage of the application of collodion in modelling the nose, some time after its formation, is worthy of attention. It was applied in the present instance to the upper two-thirds of either side of the organ for a long period, in consequence of which the nose at the present time stands prominently out without artificial aid, and destitute of any lateral bulging. A fulness and natural appearance has also been given to it below, in consequence of no compression have been exerted there by the collodion.

In bringing these remarks to a conclusion I would observe, that the result of this case of rhinoplasty has quite answered my expectations, putting aside two points: the one, the retraction which has taken place in the right eye-brow in consequence of the flap not having been taken from the centre

of the forehead, (an objection strongly raised to the lateral operation by Dieffenbach); the second, the nasal twang of the voice. The first defect has been somewhat rectified by the patient's ingenuity. He shaves the upper part of the right, and the lower part of the left eyebrow, by which means the two eyebrows appear nearly on a level.

Lastly, there is one slight addition to this operation which I should be inclined to perform on another occasion, and which I think is feasible. After the completion of the three stages, I would take from that part of the artificial nose corresponding in the natural organ to the junction of the body with the alæ, a curved prismatic portion of skin, not involving its entire thickness. The resulting cicatrix would draw somewhat towards the part above it, and tend by everting slightly the free border of the nose below it, to keep the nostril more patent. The natural groove between the body and alæ, would also be imitated, and the organ become, in consequence, more seemly, if not more useful; and thus, a slight though elegant improvement would be made in the decorative department of Surgical art.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

GUY'S AND OTHER HOSPITALS.

CHOPART'S AMPUTATION AND DIVISION OF THE TENDO-ACHILLIS.

Some months ago (Sept. 8, 1855, p. 237) we endeavoured to refute, by an appeal to facts, the very plausible arguments against the practice of amputations through the tarsus, which M. Sedillot had advanced in a paper just read before the *Académie des Sciences*. Since then several additional cases have been brought under our notice, tending to strengthen the conclusions we had arrived at. Those conclusions were to the effect—1. That the stump procured by an amputation through the tarsus (Chopart's, Hey's, Lisfranc's, etc.) makes a far more useful member than that obtained when the entire foot is removed. 2. That the common inconvenience attending such stumps, namely, their assumption of a condition of *talipes equinus*, is not, as stated by the French Professor, consequent on the removal of the anterior half of the tarsal arch, but on the contraction of the muscles of the calf. 3. That the division of the tendo-Achillis is a simple and efficient remedy for such inconvenience.

A few weeks ago, by the courtesy of Mr. Cock, an opportunity was afforded us for examining the condition of a Chopart's stump, ten years after the operation. The following notes of the case will probably be acceptable to such of our readers as feel an interest in the important question under dispute. The patient is a stout, muscular man, aged 47, and by trade a smith. The amputation was performed in 1845, on account of injury, and was a primary one. About a month afterwards, and just as the wound was healing, subcutaneous section of the tendo-Achillis was practised. The man states, that he has never had the least trouble with his stump. He wears merely a shortened boot, and asserts, that he can walk as well and as far as ever he could in his life, and can even run and jump. The posterior outline of the foot appears natural; the os calcis does not seem to be displaced in any appreciable degree. The flat sole to the foot on which he stands is four inches long, and well cushioned. The tendons in front can be felt united to the anterior edge of the bones, and play freely over the ankle-joint. The motion of the joint itself is perfect. As far as standing and walking on level ground are concerned, the man seems to have scarcely any reason to regret the loss of the front of his foot.

We do not quote this case as an unusual one, but simply as an illustration of what may be obtained by a good Chopart. The practice of dividing the tendo-Achillis is now becoming the rule at most Hospitals. By some Surgeons it is performed at the time of the operation, by others during the healing of the stump, and a third class are content to wait and see whether, when the patient gets about, there appears to be any necessity for it. As it seems to be necessary in a very large majority of cases, the practice of performing it early is, perhaps, the preferable one, since it effects a considerable saving of time. That it is, however, successful, even when not adopted until some time after the patient has been about, is demonstrated by many facts which have come to our knowledge. The particulars of a case of this kind, in which it was performed with the best results, by Mr. Jackson, in the Sheffield Infirmary, have recently been forwarded to us.

THE SURREY DISPENSARY.

DISEASE OF THE OVUM AND PLACENTA, AS A CAUSE OF ABORTION.

(Cases under the care of Dr. WILKS.)

(Communicated, with remarks, by Dr. INCE, House-Surgeon.)

A careful examination of the cases of abortion which have occurred in the practice of this Dispensary during the last year proves the importance of studying the morbid changes which the fœtal structures undergo, and shows the value of the investigations which have of late been made in this comparatively new branch of pathological science. Miscarriage was, until quite recently, generally attributed to a constitutional inertia or feebleness on the part of the mother, or was traced to a direct shock which the system had received from fright or some analogous cause. A closer investigation, however, of numerous cases has been sufficient to show that the immediate cause of abortion is often to be found in the ovum itself, or in the fœtal structures,—that the ovum being degenerated or the placenta diseased, the uterus is no longer able to retain its contents, and casts them off. To show what part the mother plays in the production of the blight—whether her influence is altogether constitutional or purely local and uterine, requires still more extended observations. Wherever situated, however, the primary cause may be, we have evidence, from the diseased state of the ovum or fœtus, that in very many cases the cause is not sudden or acute, as was formerly supposed, but essentially chronic.

During the last year four cases have come under Dr. Wilks's care confirmatory of the researches of Dr. Barnes and others, respecting the degeneration of the fœtal structures as a cause of abortion. Of the first two cases no account of the symptoms during pregnancy has been kept; but in both of them, besides a fatty degeneration of the chorion, a dilatation of these processes had occurred, and thus there existed an early condition of the cystic disease.

Emily T., aged 29, became a patient at the Dispensary on August 25, 1855, with a cough, slight hæmoptysis, crepitation at one apex, and other symptoms indicative of incipient phthisis. She had missed her last menstrual period. On September 15, she miscarried. The clot which she passed was so small, that it was a question whether it contained an ovum or not; but the existence of the latter was clearly seen when a section was made. A trace only of the formation of a fœtus was apparent, and this was, probably, about six or seven weeks old. Dr. Wilks states that, upon placing the mass in water, so that the villi of the chorion could float out, these processes were seen to be rather longer and more dilated than they should have been; but the principal appearance peculiar to them was the presence of a number of white specks everywhere filling them, and covering their surface. These opaque spots proved by the microscope to be collections of fat granules, and thus the villi, lying in tufts in the field, filled with oil-globules, presented a most perfect specimen of fatty degeneration. The case is interesting from the fact of the early period at which this morbid change had taken place.

Eliza W., aged 39, became a patient at the Dispensary in March, 1856. She had had six children. Her menstruation had been regular until last November, when it ceased. In the middle of February, a bloody, vaginal discharge took place, and, at the same time, her health began to fail, her legs also swelled, and her face became puffy. She had frequent lumbar pains, and had morning sickness. With these symptoms she came for advice, and, from their peculiarity, she was in doubt whether she was pregnant or not; for, from the fact of her legs and face swelling, she thought the enlargement of the abdomen might be due to dropsy. She continued much the same for a fortnight, when, after two days of considerable hæmorrhage, she aborted, and passed a very large vesicular mole. This was composed of innumerable cysts and which were sufficient to fill a wash-hand basin. There

was no trace of ovum present. Dr. Wilks adds :—"This was a well-marked case of the cystic disease of the chorion, as the size was very great, and the vesicles numerous and large." I have had two or three other cases previous to those above-mentioned, and which leads me to think that this so-called 'hydatid placenta' is by no means an uncommon affection. I suspect that it requires a somewhat careful examination to detect this condition in early abortions. An altogether different disease, as a cause of miscarriage, I have not unfrequently met with, due to a degeneration of the placenta itself at a later period of fœtal development, and not a blight of the whole ovum, as in the other cases. I allude to a disease which has been called inflammation of the placenta, accompanied by an exudation of lymph or fibrin among the meshes of the vessels and villi. The last instance I had an opportunity of seeing occurred in the practice of Mr. Galton, of Brixton. The fœtus was perfect, and about the fourth month. The placenta, instead of being shaggy and soft, was hard, undulated, and of a yellow colour. When cut into, it was found to have a leathery consistence, and this was seen to be due to an effusion of lymph among the placental structures, whereby they had all become united into one solid mass. The villi, when dissected out, were found to have undergone considerable degeneration, being filled with granules, oil-globules, and calcareous matter. Both structurally and functionally the organ was destroyed.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE HALF-YEAR ENDING DECEMBER, 1855.

(Continued from page 364.)

The subjoined Report comprises the following Hospitals :—Addenbrooke's (Cambridge), the Bradford Infirmary, the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General, the South Staffordshire (Wolverhampton), the Staffordshire General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn), and the York County Hospital.

LITHOTRITY.

Case 1.—A man, aged 59, in good health, under the care of Mr. Paget, in the Leicester Infirmary, having suffered for three months from the symptoms of stone. The calculus was believed to be small. The lithotrite was used, and during the three following days large quantities of *débris* came away. No repetition of the operation was required. The man left the hospital cured, and three months afterwards stated that he was "as well as ever he was in his life." *Case* 2.—A man, aged 51, under the care of Mr. Blaker, in the Brighton Hospital. He was in good health, and the bladder capacious. The diameter of the stone, as taken by the lithotrite, was less than an inch. Three operations were performed during the first fortnight of treatment, and two others after an interval of three months. He bore the operations well, and a large quantity of fragments were got away. He is now quite well, and is believed to be free from stone.

REMOVAL OF CALCULUS FROM THE URETHRA.

A man, aged 74, under the care of Mr. Moreton (H. S.), in the Staffordshire General Hospital. A small calculus was impacted behind a stricture, a little in front of the scrotum, and caused almost complete retention. It was removed by external incision, the stricture being divided at the same time. The wound healed well, and he left the Hospital able to pass a large bougie.

TREPHINING OF THE SKULL.

Case 1.—A lad, aged 12, was admitted under Mr. Barber's care into the Sheffield Infirmary, having received a compound fracture of the left parietal bone from the kick of a horse. A portion of bone had been driven into the brain, and brain substance protruded in the wound. The detached portion of bone was removed. Subsequently the membranes sloughed, and a hernia cerebri formed. The protrusion was protected by the application of a zinc plate, and at length receded. The part healed, and the patient ultimately made a good recovery. Some slight imperfection in speech had persisted for a considerable time during the convalescence.

Case 2.—A healthy man, aged 27, was admitted into the Leeds Infirmary, under the care of Mr. Teale, having had a chisel driven through the squamous portion of the temporal bone. He had also sustained a fracture of one thigh and of both legs. Several portions of bone were removed by which the brain had been injured. Hernia cerebri followed, and the man sank twenty days after the accident. An autopsy showed abscess in the brain-substance beneath the part from which the fungus grew.

Case 3.—A boy, aged 17, was admitted into the Staffordshire General Hospital, under the care of Mr. Hughes. Four weeks before he had been taken with symptoms of fever, attended with pain in the left temporal region. A puffy, slightly pulsating tumour, without bruit, now existed over the painful part. Soon after admission fluctuation became distinct, and the abscess was opened, bare bone being exposed. Three days after the puncture a convulsive fit occurred, after which he remained comatose, and the side of the body opposite to the disease of the skull was paralyzed. Having remained in this state for three days, it was determined to operate. Immediately before the operation he was more sensible than he had been on the previous day, but very marked improvement followed the removal of a piece of bone with the trephine. He now became able to speak, and regained consciousness. The pulse, which had before been slow and oppressed, rose in frequency. No pus or other fluid had, however, been found beneath the affected bone. After a day or two he again sank into a state of unconsciousness, and death took place a week subsequent to the operation. At the autopsy an abscess in the left hemisphere was found.

Case 4.—A healthy lad, aged 14, under the care of Mr. Green, in the Durham Infirmary, on account of a compound fracture of the frontal bone. The injury had been sustained in a fall from a house a height of thirty feet. The depressed fragment was lifted by an elevator, an overhanging portion having first been cut away with Hey's saw. The symptoms of compression passed off after the operation, but those of concussion continued for some days longer. The recovery was afterwards, however, uninterrupted. A simple fracture of the femur had been sustained in the same accident.

Case 5.—A boy, aged 12, under the care of Mr. Fearn, in the Derby Infirmary, on account of a compound fracture of the skull. He had fallen a height of twelve feet, striking his head on the corner of a fender. A portion of the left parietal bone, about two inches long and half-an-inch broad, had been detached and depressed. The trephine was applied over the sound bone, and, with the elevator, the depressed fragment was removed. He recovered rapidly, and never had any cerebral symptoms.

(To be concluded next week.)

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 104.—Inhalation of Chloroform and Alcohol.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—Will you or any of your contributors kindly inform me whether inhalations of chloroform in painful complaints of the chest, or those of alcohol in croup, as suggested by Professor Martin, have been exhibited in this country.

London, April 8, 1856. I am, &c. C. S.

No. 105.—Compressed Air Bath.

Sir,—May I ask if you have paid attention to the plan of compressed air baths, as practised at Lyons and Nice, and, perhaps, other places. I think I have not seen it noticed in

the *Medical Times and Gazette*, which I regularly read. As it will, no doubt, soon be introduced into this country, it is desirable that the Profession should know something about it from those who have had opportunities of ascertaining its merits.

I subjoin the title of a pamphlet on the subject, which perhaps you may have seen :—"Compressed Air, as a Remedial Agent," by Dr. Joannis Milliot, of the Medico-Pneumatic Establishments of Lyons and Nice. Nice: printed by the Société Typographique, 9, Rue du Gouvernement, au premier étage.

I am, &c.

Darlington, April 9, 1856. JOHN FOTHERGILL, M.R.C.S.

No. 106.

SIR,—Will you inquire whether any of your readers can furnish me with the "Lines addressed to a skull, found in the skeleton case of St. Bartholomew's Hospital." They begin, if I remember aright :—

"Behold this skull, once with æthereal spirit full."

I am, &c. M. D.

No. 107.—MORBID SOUNDS OF THE HEART.

SIR,—I was much pleased with Dr. Elliotson's paper which appeared in your last publication, since I have met with a case so exactly corresponding with those related by him and Dr. Jenner. About a year and a-half ago, a thin woman, aged 26, was admitted into the Leeds Infirmary to be tapped for ovarian dropsy, which had accumulated to a very large extent. She was a special object of attention at the time, on account of a loud systolic bruit which could be heard over the greater part of the chest, and, at times, even by any one within two or three yards of her bed, so that she used to amuse the patients who lay near her by calling their attention to the noise. She also suffered from palpitation, but from no other symptoms of heart disease. I cannot state positively whether the bruit disappeared entirely after she was tapped, as I have no notes of the case; but I think it did. The patient has been tapped two or three times since, and was in the Infirmary two months ago for the same purpose; the accumulation of fluid was again very large, fifty-six pints being removed, but, neither before nor after the operation, could any abnormal sound be heard within the heart, although I examined her carefully almost every day. The sounds of the heart were more loud, sharp, and distinct than normal, probably owing to the thin state of the parietes of the chest, since there was no evidence of dilatation of the heart. Thanking you for the space you have allowed me,

I am, &c.

ROBERT GEORGE HARDWICK,
House-Surgeon to the Leeds General Infirmary.

April 10, 1856.

Medical Times & Gazette.

SATURDAY, APRIL 19.

MR. GRIFFIN'S POOR-LAW MOVEMENT.

FOR several weeks past, the columns of our own Journal, and those of our Medical contemporaries, have teemed with the accounts of meetings held in different parts of the country to support the movement originated by Mr. Griffin on behalf of the Poor-Law Medical Officers, he himself being one of that body, and capable of testifying, in his own person, to the hardships to which his fraternity have been exposed. It is now suggested that the time has arrived when the machinery which has so long been in action should be worked to some definite purpose, and that the scattered elements of well-founded discontent should now be concentrated into a general and unanimous expression of feeling upon the wrongs too long inflicted upon the Poor-Law Surgeons, and too long endured without public remonstrance. Complaints which, if uttered by a single person, would have brought inevitable loss, or even ruin, upon the complainer, may now find a voice in the general chorus of dissatisfaction which is joined by hundreds; and if the movement, so well inaugurated, be only conducted with skill and discretion, incalculable benefits must accrue to the Profession.

We, therefore, take occasion to urge most strongly upon the Poor-Law Medical Officers of this country, and indeed upon the whole Profession, whether connected with the Poor-Law or not, the absolute necessity of joining heart and hand in the proposed movement; and also the propriety of sending contributions to defray the current expenses, and securing from loss those who have nobly stood forward to vindicate our rights and protect our liberties. It is merely a selfish argument for any one to urge that he does not himself hold any office connected with the Poor-laws, and therefore that he need not trouble himself to subscribe to, or otherwise help the cause; for the question is one which really concerns the entire Profession, and if our Poor-law brethren are to be sacrificed, there is an end to the respectability and the independence of the whole body.

But, while thus advocating most strongly the necessity of calling a meeting in London, and of supporting our Poor-law Medical brethren to the utmost of our power, we must take the liberty of making a few remarks upon the relations which they hold to the Poor-law Board, and of offering a few cautions as to the best method of attaining our legitimate objects.

We must observe, in the first place, that the Poor-law Board, at Whitehall, is not fairly chargeable with the manifold iniquities which have been committed upon Medical men in the service of Poor-law Unions and parishes. The Central Board is composed chiefly of well-paid lawyers, with a sprinkling of placemen and politicians, none of whom can be supposed to have the slightest sympathy with our Profession. These persons, therefore, judging only from the conduct pursued by members of the legal Profession, who seldom undersell one another, and who always contrive to obtain an adequate return for their services, are naturally amazed that Medical men are willing to accept positions involving much mental and bodily toil for little or no recompense; and, instead of feeling or exhibiting anything like a sentiment of compassion for an unfortunate parish "doctor," who is insulted, browbeaten, and underpaid by Poor-Law Guardians, there is no doubt that my lords and the lawyers at Whitehall only ridicule him for his pains. They would, of course, argue, if they condescended to argue at all, that if the salaries are too low and the duties too heavy, the former ought not to be accepted and the latter ought not to be undertaken. *Fas est ab hoste doceri;* and if the doctors would imitate the lawyers in insisting upon a just remuneration for their labours, they would not only improve their financial position, but would raise themselves in the public estimation. The argument used by all vulgar persons—and Boards of Guardians are not exempt from the presence of such—is, that a commodity is worth just as much as it will fetch; and if it is found that a gentleman will make a desperate struggle to obtain a salary which would be despised by a footman, can it be a matter of surprise if his services are estimated at the same value as that which he himself sets upon them; and can it be wondered at, that the Poor-Law Board at Whitehall hesitates to interfere to break a contract into which the Medical Officer has entered with his eyes open, with a full knowledge of its obligations and its consequences?

We have offered these remarks because we believe that it is intended to cause an agitation for a general increase of salaries. Now, we do not at all believe that the Poor-Law Board, or the House of Commons, will make a compulsory augmentation of the emoluments of the Medical Officers; but, at the same time, we are sure that if the Medical men would combine and determine *not to accept low salaries*,

neither the Poor-Law Board nor the House of Commons could prevent them from *obtaining higher ones*. We would also advocate a very stringent code of morality among our own body; and if any one were found mean enough to undersell his neighbour, or to solicit an office of which his neighbour had been unjustly deprived, he ought to be visited by the reprobation and contempt of the whole Medical community. We very much fear that this is the kind of reform which is principally required, and that without some consistent principles and practice of honour among ourselves, even legislative interference will be of little avail.

Another apology may be offered for the Poor-Law Board. It is not, perhaps, generally known, that, although this Board has taken upon itself absolute jurisdiction over several Poor-Law Districts, yet there are others over which its authority does not yet extend. Such, at least, is the view entertained by the Board itself; and, although the words of the Acts of Parliament in connexion with the Poor-Law are perfectly explicit upon the jurisdiction of the Board over *all matters* relating to the relief of the poor; yet the Board, in many instances, perhaps to save itself trouble, adopts the subterfuge of declaring its inability to interfere in certain districts, because they are not within its jurisdiction. We need scarcely remark, that the ill-treatment of a Medical man would not be likely to arouse the Board from its dignified apathy under such circumstances; and the death, or ill-treatment, or overcrowding of a few hundred paupers, so long as it occurred under the auspices of a local authority, not included in an Union, would be regarded with the like indifference. It may be remembered how Herculean a task it was, in the case of St. Pancras Workhouse, to rouse the Poor-Law Board to exertion; and although the subsequent conduct of the Board has completely belied its theory of non-interference, yet paupers were stifled with carbonic acid, Medical men were insulted with impunity, typhus fever was engendered, rate-payers were scandalized *ad nauseam*; and not until the abominations had been exposed and denounced for months together, did the Board at last tardily take some steps to abate the evils which had so long existed.

In the cases where the Poor-Law Unions have been placed under the absolute control of the Poor-Law Board, it must be admitted that our Profession have enjoyed a better position than when under the local Boards; nor must we forget the measure of justice lately accorded in rendering the office of Union Surgeon permanent for life. We have, therefore, very little hesitation in expressing our wish that all the parishes should be placed under the actual control of the Poor-Law Board; because, if that Board should act harshly or illegally, it is amenable to public odium through the House of Commons; whereas the local and *quasi*-independent Boards assume to be under no control whatever; and, unless the case be very flagrant, and public indignation be very loudly expressed, they may safely set at defiance the voice of remonstrance or of censure.

In carrying out the movement originated by Mr. Griffin, we hope that our brethren will recollect, in the first place, the necessity of *union among themselves*; and, remembering the case of the Assistant-Surgeons in the Navy, who have obtained a triumph by union, moderation, and perseverance, we have no doubt that the efforts of the Poor-Law Surgeons will be equally or more successful, if they are actuated by the same principles.

THE WEEK.

Mr. Headlam's Medical Bill having been shelved, a second Bill has been brought into the House of Commons by Lord Elcho, Mr. Fitzroy, and Mr. G. A. Hamilton. The new Bill leaves the present corporations to enjoy their existing rights, but it subjects them all to the control of a central authority. The President of the Board of Health is to be a perpetual member of the Council, *ex officio*, and there are to be eight other members of Council, at a salary, it is said, of £1000 each per annum. There is to be a registration of licensed Practitioners, and fines and imprisonment are to be inflicted upon persons falsely assuming Medical titles. We understand that the Select Committee to whom the discussion of the Medical question has been referred, have called upon the different Medical Examining Boards for a series of returns, specifying the number of candidates, the proportion of rejections, and other matters of a similar nature. Whatever may be the fate of the Medical Reform Bills, we are happy to find that the Government is really examining the question; and we cannot doubt that the inquiry will do much to raise our Profession in public estimation.

On Tuesday last a Deputation, headed by the Earl of Shaftesbury and Lord Stanley, waited upon the Poor-Law Board to represent the propriety of issuing an order to the different Unions throughout the country to institute a system of training competent nurses from the female paupers in the different Workhouses. A number of gentlemen attended the Deputation, chiefly consisting of Medical men who are members of the Epidemiological Society. Dr. Sieveking, with whom the present movement originated, explained the objects of the Deputation to the President of the Poor-Law Board, who was also addressed by Dr. Sibson, the Rev. Dr. Stebbing, Mr. Squire, and others. It is proposed that the able-bodied female paupers in Workhouses should be educated in the duties of nursing; and it is urged that, by this training, not only may the paupers become useful members of society, but may also be enabled to gain their own living, and thus cease to be paupers altogether. The President of the Poor-Law Board, while promising to give the subject his best attention, declined to pledge himself immediately to issue an order in accordance with the wishes of the Deputation; and he alluded to the case of St. Pancras Workhouse as an instance where pauper nurses were found quite incompetent to the task of nursing the sick. The case thus cited is, however, by no means to the point; for in St. Pancras and other ill-regulated Workhouses the nurses have been chosen from among the aged, the infirm, or the dissolute; whereas the distinct object of Dr. Sieveking's movement is to choose individuals from among the healthy, able-bodied, and respectable females, who would thus, instead of being burdens upon their parishes, become useful members of society. While approving very strongly the scheme proposed by Dr. Sieveking, which he has long advocated with great energy and perseverance, we are still of opinion that the nurses in Workhouses ought to be paid, as it never can be expected that poor persons will cheerfully undertake onerous and responsible duties, unless some prospect of reward be held out to them.

The Vestry of St. George's, Hanover-square, who have delayed for a very long period the election of two Medical Officers of Health for that important and extensive district, have at last made a choice which does them infinite credit. The names of Dr. Aldis and Dr. Druitt are sufficient guarantees that the sanitary condition of one of our largest Metropolitan parishes will be duly protected. Dr. Aldis has been long known, both as a scientific Physician and as one who has devoted very great attention to sanitary matters, and he has laboured for many years with indefatigable zeal and industry among the poor as a Dispensary Medical Officer. Dr. Druitt is no less extensively known as a Physician of high scientific attainments, and as the author of one of the best practical manuals of Surgery in the language. We are rejoiced to find that,

although we have cautiously abstained from using any influence which this Journal may possess in behalf of particular candidates for the appointments of Medical Officers of Health, yet the principles which we have advocated have been almost uniformly triumphant; and that the gentlemen whom we should have designated as the most eligible candidates have, in most instances, been returned.

We are happy to perceive that the authorities of St. Thomas's Hospital, who have already done much to encourage preliminary knowledge among the alumni of the Profession, have extended the subjects of their preliminary examination, so as to embrace, not only, 1st, Classics and Mathematics, but also, 2nd, Physics and Natural History, and 3rd, Modern Languages and Modern History. This examination is optional, but a prize of £20 is given to the successful candidate in each division. The examination in Physics and Natural History will comprise the principles of Comparative Physiology, Botany, and the Elements of Natural Philosophy; that in Modern Languages and Modern History will comprise French, German, and the History of England. This step on the part of the authorities of St. Thomas's is quite in the right direction, and, if followed by other educational establishments, will no doubt tend most materially to elevate the *status* of our Profession.

It is probable that the trial of William Palmer, for the alleged poisoning of Mr. J. P. Cook, and of his wife, Ann Palmer, will take place at the next Sessions of the Central Criminal Court, which will commence on the 14th of May. It is rumoured that the legal advisers of the accused intend to apply to the Court of Queen's Bench for a further postponement of the trial, by requiring that it should be removed for trial to some county assize town, at the next autumn circuit. Considering the agitation which has been already created in the public mind, and that further delay can be of no possible benefit to the prisoner, we trust that the Court will see fit to refuse the application for postponement, if made. The sooner this matter is brought to an issue, the better for all parties. The Court of Queen's Bench has refused an application made on the part of the accused for the details of the chemical analysis. Such an application, if granted, would, in our opinion, only tend to defeat the ends of justice. Like many other matters connected with the Rugeley cases, a request of this kind is contrary to all precedent.

REVIEW.

Ocular Spectres and Structures as Mutual Exponents. A Treatise.—Eustachian Tube; why opened in Deglutition. A Paper. By James Jago, A.B. Cantab., and M.B. Oxon. London, 1856. Pp. 110.

The greater part of the volume before us is taken up by the former of the above mentioned subjects. The 'spectres' alluded to are the subjective phenomena of vision "caused at the protective coverings of the eye, in its lenses, in its nerve, or in the sensorium." The scope and object of the work will be best explained by the following extract from Dr. Jago's introductory chapter. "No one has ever undertaken a *methodical* elimination of ocular spectres from one another. Tracing isolated ones to their source has indeed been done; but something more is meant by the remark now made. It is here affirmed that no one has hitherto devised and put into practice *any plan or plans* of exploring the visual organ, capable of leading to the detection of the respective causes of these spectres.

"Nevertheless, if there be anything upon the eye, or in the structure of its lenses which may turn a ray of light from its otherwise presumable path—and we overlook the fact of such special interference—we shall certainly, in our experimental observations, charge upon the eye, as a lenticular combination (if we confound not other and retinal phenomena), effects which are not justly *thus* attributable to it. And even when we have accompanied the rays of light up to the percipient points themselves (wherever they may be situated), we cannot accurately state what sensations ensue from such rays until we have discovered every channel through which the percipients may be excited, *as if by light*, through other sorts of impulses; or through which the action of light on them may be modified or obstructed.

"In a word, a preliminary investigation is demanded before the consideration of the main question of physiological optics can be proceeded with.

"Impressed with such views, the author of the foregoing remarks has laid upon himself the task of endeavouring to accomplish the elimination here spoken of. Nor can he deem the time so occupied wasted, if he does not deceive himself as to the results he has obtained. He finds that, in the transparent ocular media structural spectres are created, which have begotten erroneous opinions upon these media; and that certain anomalies incidental to the use of the organ of sight, which have been regarded as evincing a capricious conduct in the retina, optic nerve, or brain, are purely mechanical in their origin; insomuch that, contrary to what is commonly believed, the laws which regulate the action of the special sense implied are absolute and simple.

"Further, since certain objects existing in the ocular lenses can in no way be rendered visible in the dead eye, and yet, as will be explained, are made, by inflection of light, conspicuous in our own eyes, yielding images exceeding the objects themselves in diameter, with a wide retinal expanse as a field of view,—the eye is, in many important respects, if we can rightly use it for self scrutiny, a microscopical instrument of unrivalled power; and we can thus determine structure where all other means have failed; and the many obligations owing to histologists will, in part, be repaid, while the title 'Ocular Spectres and Structures as *Mutual* Exponents,' will be justified." P. 2.

While we cannot but think that Dr. Jago's style of composition is capable of improvement, we are well satisfied with the careful manner in which he has turned up the field of research that he has undertaken to explore. There is no question that his method of inquiry into the minute and delicate structure of the refracting media of the eye will ultimately find its practical application in the *early* diagnosis of pathological changes, of which they are the seat; changes which, irremediable as they may be when first noticeable by the ordinary modes of exploration, may yet be within the reach of Medical art when at their commencement. "*Principiis obsta*" is a maxim the value of which becomes more obvious the longer we practice either Surgery or Medicine. We commend this treatise, then, to the study of our readers, especially of those who have devoted themselves to ophthalmic medicine as a specialty.

The reason why the Eustachian tube, shown by Mr. Wharton Jones to be usually closed, is opened during acts of deglutition, is thus stated by our Author:—"There must be a provision against the ingress of aerial undulations from the throat into the tympanum, which, if admitted, would threaten the membrana tympani with incessant oscillations, and endanger both its integrity and that of the complex and delicate apparatus in connexion, and violate the peace of the labyrinth, *viâ* this sudden route, with all the sonorous impulses impressed upon the animals breath.

"Therefore, the moment seized for bringing the tympanum into communication with the fauces must be one in which there can be no respiratory current.

"The only instant compelling a suspension of respiration is that in which the act of swallowing is practised, and must, therefore, be embraced for the service just named.

"Finally, the same rule secures the tympanum against the intrusion of gastric gases evolved through the fauces."—P. 97.

A Young Lady Accidentally Poisoned.—An inquest on the body of Miss Frances Mary Feilden, second daughter of the Rev. R. M. Feilden, was held at Bebington, before Mr. Churton, Coroner of Cheshire, on Friday evening. It was shown in evidence that the young lady herself took up a bottle of sulphate of zinc (Sir William Burnett's disinfecting fluid) in mistake for fluid magnesia. A verdict of "Accidental Death" was returned.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON PUERPERAL FEVER IN THE FŒTUS AND INFANT.

By M. LORAIN.

During a long *internat* at the *Maternité*, M. Lorain was struck with the great mortality observed among infants when puerperal fever prevailed. In the fœtus, peritonitis was the only form it assumed; but in new-born infants, although peritonitis was still the most common form by far, yet he has also observed erysipelas or umbilical phlebitis accompanying it, or meningitis, pleuritis, multiple abscess, etc. When both mother and child succumb, the lesions are not always identical; the one sometimes labouring under meningitis and the other under peritonitis, or the reverse. In the infants the peritonitis runs a rapid course, not lasting more than three or four days, and is always fatal, most dying before their tenth day, and in the adynamic form much sooner. Besides the necroscopic signs proper to peritonitis, the spleen is found remarkably enlarged, sometimes to double its normal size; but of all the concomitant lesions those of the umbilical system are the most important. When a febrile condition is present, as soon as an infected state of the economy is developed, the umbilicus presents a similar state to that of a stump after amputation—the surface becoming foul and grey, and refusing to heal. The vessels participate, their coagula becoming softened. This condition of the umbilicus is not regarded by M. Lorain as the cause of the peritonitis, any more than is uterine phlebitis the cause of puerperal fever, for in many cases the peritonitis is unpreceded by omphalitis. For its origin we must go back to a more general cause, the nature of which is as yet unknown. Observation has shown, that, of a given number of infants thus affected, about one-half the mothers become also the subjects of puerperal fever, so that when the child is attacked the mother is menaced, and *vice versa*. So, too, a woman who has been delivered of a fœtus dead of peritonitis, is in danger of the fever.—*Gaz. des Hôp.* 1855. No. CXXIII.

PROLONGED APPARENT DEATH OF AN INFANT.

By M. BOUCHUT.

M. Bouchut refers to a case recently related by Dr. Maschka. An infant was seen by him twenty-three hours after birth, having lain at an open window, after every means for its resuscitation had been tried in vain. He found its surface cold and blue, but as no cadaveric rigidity was present, he applied the stethoscope, and heard at long intervals feeble but quite distinct pulsations, which were, however, quite unaccompanied by any impulse or intercostal motion. Attempts at restoration were again renewed, but in vain, the beats getting feebler and feebler until they ceased. Examination showed that the lungs had not breathed.

M. Bouchut calls attention to the importance of applying auscultation for the purpose of ascertaining whether life exists, and of persevering in our efforts when any sound can be heard. The stethoscope may have to be kept applied even for five minutes. As to the absence of respiration when the heart had so long continued to beat, several analogous cases are on record. Legally such a child is considered as born dead and cannot succeed; but in the present condition of science legal life and physiological life are not the same. The law was laid down when auscultation was unknown, and while legal life remains as it was, physiological life has changed its conditions of appreciation. Apparent death succeeding to birth, and characterized by the absence of respiration and the presence of beating of the heart, is only a diseased condition of the new-born child; and whether it is cured of this or dies, it is living, though it has not respired. By taking away its rights of succession, the law punishes it for a malady.—*Gaz. des Hôp.* 1855. No. CXXIV.

ON THE PULSE OF INFANTS.

By MM. SEUX and ROGER.

M. Seux, Physician to the *Charité* at Marseilles, has recently made a series of examinations of the pulse in forty infants, from the period of directly after birth to two months, and compared the results with those derivable from the examination of thirty-five others made by a colleague. He tabulated these combined results, and draws the following conclusions:—1. The pulse of infants may vary when in a state of health and quietude, from 80 to 164; but in more than half the examples it ranged from 120 to 140; then came from 140 to to 160, 100 to 120, then above 160, and lastly below 100. 2. It is generally regular, but sometimes several quicker pulsations are felt in succession, and sometimes several slower. 3. The sex, constitution, salubrity of residence, or time of year, exerted no influence. 4. The pulse was observed to be most frequent during the first few hours after birth, but from after a day to two months there was no difference attributable to age. 5. The hour of the day exerted no effect. 6. The pulse was somewhat quickened during and for about a quarter of an hour after suckling. 7. Sleep or waking, calmness or agitation, were attended with marked differences. During sleep the pulse was less frequent, becoming somewhat quicker when the child waked quietly, and still more so when it was agitated and cried. Thus the pulse might be at 104 during the first of these conditions, and at 120 and 134 during the second and third. 8 A sudden impression or effort increased the pulse 20 or 25 beats or more.

M. Roger, reporting on the paper, observes that these conclusions are for the most part conformable with those deduced by other observers. Thus, the increase in frequency of the pulse during waking efforts, sucking, etc., has already been noted and insisted upon in relation to the diagnosis of fever in infants. On the other hand, these observations do not confirm the statement made by Knox and Guy, that there is a slight increase of frequency in the mornings; nor that made by Guy and Valleix, that the pulse is somewhat quicker in females. Valleix found the influence of sex prevalent, even among young children; but Trousseau only found it operating after two months, and M. Roger's own observations lead to the same conclusion. M. Seux's investigations, however, confirm all previous ones in the fact of the physiological frequency of the infant's pulse, and the great amount of oscillation that may take place consistently with health. The limits of this oscillation, however, become less and less as the child grows older. While the pulse of the new-born infant may range from 76 to 208, it contracts to between 80 and 120 during early infancy, and to between 70 and 110 in second infancy. In spite of this amount of oscillation, and although the high figure 150 and the low one 70 be compatible with health, we must remember that the ordinary figure varies from 100 to 120; and we may state generally that there is at least presumption of disease when the pulse, examined during repose, mounts up to and is maintained for some time at 140 or 150; and there will be certainty on this point if this figure be observed in a child in whom it had been observed to be less. Especially is this deduction to be drawn when such frequency is accompanied with an increase of temperature—a point to which M. Roger attaches great importance. On the other hand, a notable diminution below the mean leads to the fear of cerebral affections, especially meningitis. A very rapid pulse in infants, even when continued, does not lead to so unfavourable a prognosis as in the adult; for, while the life of an adult, when the pulse has exceeded 150 for several days, may be usually considered as highly endangered, the pulse of the infant may rise to and be maintained at a very high figure, and yet recovery take place.—*L'Union Méd.* 1855. No. CXXX.

GENERAL CORRESPONDENCE.

LACERATION OF THE PERINÆUM IN PRIMIPARÆ.

[To the Editor of the Medical Times and Gazette.]

Sir,—I have been much interested by communications, in recent numbers of the *Medical Times and Gazette*, from Dr. Snow Beck and Mr. Borham, on the frequency of "Laceration of the Perinæum in Primiparæ." It is simply a question of fact, and can only be decided by accurate observation. I have for some time been impressed with the idea, that laceration of the perinæum takes place very frequently, to a greater or less extent, in first labours. I did not, however, think that it occurred quite so frequently as the observations of Dr.

Snow Beck would lead one to believe; but, if every rent of the vaginal surface of the perinæum is to be regarded as a laceration, I should, from my own experience, affirm, that a breach of surface takes place in two-thirds of all first labours. This I know, because I frequently perceive the perinæum tear under my fingers, just as the child's head is extruded; and, also, by the presence of a little bright blood about the back part of the head and neck of the child. No subsequent symptoms—beyond an intense smarting, which passes off in a few hours—follow this injury, and in future labours no evidence of laceration having previously occurred is present. From my note-book I find that, since the 1st of January, 1855, I have attended 33 primiparæ. In three of these considerable laceration of the perinæum occurred. In the first, and most severe case, a moderate-sized woman, of light complexion and spare habit, the child, a very large one, was forcibly expelled, and the perinæum was torn through all its structure, nearly to the anal aperture. Local and constitutional disturbance followed. The wound granulated, and was barely healed at the end of a month. In the second case the child presented with its breech. Considerable laceration of the perinæum took place; no untoward symptoms followed, any more than if no laceration had occurred. In the third case, which happened very recently, a considerable rent took place in the perinæum laterally. I ordered the patient to lie on her side for four days. She had no symptoms which could be referred to the injury, and made a favourable recovery. I do not know in how many of the 33 cases laceration of the internal surface of the perinæum took place, since my attention was not particularly directed to the subject until I saw the communication of Dr. Beck. In 5 of my cases the women were over 30 years of age; in 21 cases the labour did not exceed twelve hours in duration; in 8 cases it did not exceed twenty-four hours; and, in four cases, it did exceed twenty-four hours. 2 cases required the application of the forceps, and 2 were followed by considerable hæmorrhage from irregular and inefficient contraction of the uterus. I trust, that these imperfectly detailed facts will throw some light on the interesting subject under consideration; and, in conclusion, I beg to express my opinion, that a slight laceration of the vaginal surface of the perinæum not unfrequently takes place in ordinary labours, although by no means so often as in first cases; and, that it is not, under ordinary circumstances, attended by subsequent symptoms or inconvenience to the patient. I believe, that immediate treatment by sutures, etc., in these cases is worse than useless, since it alarms the patient and friends often unnecessarily; the sutures are liable to prove a new centre of irritation, and manipulation can do the injured parts no good; but that the best effects may be expected by keeping the patient on the side, with the knees together, and giving the injured parts sufficient attention to keep them clean.

I am, &c.

St. Paul's-square, Birmingham, April 11, 1856. JOHN BASSETT, M.R.C.S.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

TUESDAY, MARCH 18, 1856.

Mr. ARNOTT, President, in the Chair.

MR. SQUIRE brought forward a specimen of

ANEURISM OF THE CEREBRAL ARTERY.

The aneurism was about the size of a horse-bean, and was situated on the middle cerebral artery, where it passes through the fissure of Sylvius. There was no disease of the brain adjacent to the tumour. Most of the cerebral vessels were affected with atheroma, but there was no disease of those arteries of the extremities which were examined. The patient was a man, aged 57, who had repeatedly suffered from epileptiform fits, in one of which, at length, death took place.

Mr. Shaw showed the bone removed in a case of

EXCISION OF THE HEAD OF THE FEMUR.

The patient was a lad, aged 18, who had, for eight months, been under care in the Middlesex Hospital, on account of disease of the hip-joint, the result, it was believed, of localized rheumatism. Dislocation on to the dorsum had taken place, and the head of the bone lay quite superficially, and was the source of much irritation. In the operation of excision below the great trochanter, the neck of the bone was found united to the edge of the acetabulum, and some difficulty was encountered in exposing it. The shaft, where cut through, and the acetabular cavity, appeared to be healthy. The lad had done well since the operation.

A discussion followed as to the frequency with which (as was stated to have occurred in the case) suppuration of joints follows rheumatic inflammation. The President and Dr. Quain expressed strong opinions as to its extreme rarity; and the latter thought that in some in which it was believed to do so, the real disease was pyæmia, and not rheumatism.

Mr. Shaw also brought before the Society a

CYSTO-MYELOID TUMOUR OF THE TIBIA.

The specimen had been removed by amputation through the thigh, from a girl in whom the disease had existed for about nine months. The swelling had increased rather rapidly, surrounding the tibia, pushing outwards the head of the fibula, and projecting backwards into the popliteal space. During its growth the patient had lost flesh and colour, and did not suffer from any degree of hectic. The specimen showed an irregularly-lobulated tumour, surrounding the bone, and closely united to it. In the bone itself was a small cavity, and the cancellous tissue generally was indurated. The section of the tumour was yellowish-white, and opaque, and it exuded little or no juice. Mr. Shaw called upon

Mr. Flower, who read a report on the

MICROSCOPICAL STRUCTURE OF THE TUMOUR.

It had been found to consist in most parts of elongating or fusiform mono-nucleated cells. These made up the great bulk of the tumour; but in some parts, after much search, a few well-characterized poly-nucleated or myeloid cells were also seen. (Drawings illustrating the description were shown.) The existence of these latter, and the circumstance that cysts were present, had led to the selection of the name, cysto-myeloid.

The President, Mr. Henry Gray, and Mr. Hutchinson, having all expressed doubt as to the real nature of the tumour, the two latter gentlemen were appointed to make a further examination and report.

Mr. Curling showed a lower extremity removed by

AMPUTATION AT THE HIP-JOINT.

A married woman, aged about 35, had been admitted under his care into the London Hospital, on account of a very large tumour, apparently connected with the middle of the shaft of the femur. It had grown rapidly, and the patient had lost health and flesh during its development. There was fluctuation present, and by means of a trocar thirty ounces of bloody serum were drawn off a few days before the operation. The tumour being believed to be of malignant nature, it was decided to remove the limb at the hip-joint. In the operation the posterior flap was made first, and its vessels tied before proceeding to disarticulate. But little blood was lost. The patient had thus far done well. An examination of the tumour showed it to consist of brain-like structure, among which were numerous large cysts. It had been developed in the cellular tissue, and did not attach itself to the bone. The bone, however, where the growth rested upon it, was somewhat roughened, though it had not lost its periosteum. The microscope showed the ordinary elements of encephaloid cancer.

Mr. Ward exhibited the intestines from a case of

INTERNAL STRANGULATION OF BOWEL.

The specimen showed a coil of the small intestine, strangulated by having been twisted over the border of a diverticulum of considerable length, and attached at its extremity. No lymph had been effused, nor did any loop exist, the constriction having been effected by the twisting only. The patient had suffered from symptoms of internal obstruction for twelve days before death. He was a robust lad, aged 14, who had enjoyed excellent health, and who attributed his illness to a strain in lifting a weight. Mr. Ward had not attended him during life, but he understood that the symptoms had, at first, been ill-marked, and had much simulated those of colic.

Mr. Ward also showed a specimen of

ULCERATION OF THE GUT IN HERNIA.

It was of interest, as proving that, in femoral hernia, the pressure of the constriction is greatest beneath the edge of Gimbernat's ligament. It was exactly at this spot that ulceration had perforated the bowel, the other parts of the protruded knuckle retaining their firmness. The patient from whom it had been removed was a woman, aged 38, who had been admitted into the London Hospital seven days after the occurrence of strangulation. In the operation, on dividing the stricture, the gut gave way, and fæces escaped. Death followed about twelve hours afterwards.

Mr. William Adams exhibited a preparation showing

EXTENSIVE DISEASE OF THE BODIES OF THE VERTEBRÆ.

The bodies of the two last dorsal and two upper lumbar vertebræ had been destroyed by caries and necrosis, and, excepting some detached fragments still remaining, had been wholly removed. Two of the arches, also, which had suffered necrosis were loose, and bathed in pus. The specimen was from the body of a boy, aged 12, who had suffered from strumous disease of the bones of one foot six years ago, and in whom symptoms of vertebral disease had followed a blow on the back six months before death. The pus had not found its way along the course of the psoas muscle, but had burrowed upwards, and escaped in the posterior cervical region.

Mr. Adams stated, in respect to the question of the occurrence of necrosis in the vertebral bones, that he believed that wherever the disease commenced in the bones themselves, it progressed rather by death of fragments, than by ulceration. On the contrary, when the disease began in the inter-vertebral cartilages, and attacked the bones only secondarily, caries was its more usual form, though generally combined with some necrosis.

Mr. Hutchinson showed, for Mr. G. Borlase Childs, a

LARGE FUNGATING GROWTH FROM THE ORBIT.

A boy, aged 10, had been admitted, under Mr. Childs' care, into the Metropolitan Free Hospital, on account of a very large growth which projected from the right orbit. Its surface was lobulated, and covered with superficial slough, and its whole size was, at least, that of three fists. There had recently been frequent bleedings from it, and the boy had lost colour, and become miserably emaciated. There were no head-symptoms, nor any evidence of glandular disease. The disease had followed a blow six months before, and its growth had been very rapid. No doubt was entertained respecting the malignant nature of the disease, but, in order to rid the boy of a source of so much discomfort, Mr. Childs determined to remove it. The eye-ball had been destroyed by pressure, but was not involved in the tumour, which had been developed originally in the cellular tissue of the upper lid. The removal was safely accomplished, although with some loss of blood, and the boy had rapidly improved in health since. Mr. Hutchinson stated that, from examination of the tumour after removal, he had arrived at a confident opinion, that it was not, as had been supposed, an example of soft cancer. Its section was white and indistinctly marked into lobes by fibrous septa; its structure somewhat tough and almost juiceless. Under the microscope only the elements of a fibro-nucleated or fibroid-recurrent tumour could be discovered. There were seen cellular tissue and abundance of elongating cells, also numerous nuclei, and small cells with single nuclei; but none of the large cells with more than one nucleus characteristic of cancer. His prognosis, founded on this examination, was, that the growth would probably return rapidly and repeatedly near the original site of the disease, but that it would not affect either the glandular system or the internal viscera. (A drawing from the microscope was shown.)

EPIDEMIOLOGICAL SOCIETY.

Monday, April 7, 1856.

Dr. Babington, President, in the Chair.

This being the annual meeting, the President, Secretaries, and other officers were re-elected for the ensuing year, (in accordance with the list which appeared in our last Number.)

Dr. M'William read the Annual Report, which contained a brief statement of the proceedings of the various Committees of the Society during the past year.

A paper was then read on

CONCURRENT SCARLATINA AND MEASLES.

(By W. B. KESTEVEN, F.R.C.S.)

The author had, within the last few years, met with several cases in which the symptoms of both these diseases were so intermingled, that he had experienced great difficulty in diagnosis, until the subsequent course of the cases, or the occurrence of the sequelæ, indicated the real nature of the cases. The application of these facts was to the effect, that the confused diagnosis, or non-distinction, of these two eruptive fevers, observable in the accounts of the epidemics of former days, is not to be attributed to want of attention or acuteness of perception on the part of our ancestors; but is to be accounted for by the probability of the existence of the coincidence or intermixture of the two eruptions, as in the cases described by the author.

Dr. J. Bird said, the symptoms of scarlatina and measles were occasionally of a somewhat similar nature; but the cutaneous eruptions in the two cases were most marked and distinct. There was also a similarity between small-pox and scarlatina; but he denied that they could be confounded, or that they proceeded from the same poison. The eruption of small-pox would sometimes occur as febrile erythema; but it would ultimately become pustular, and reveal the true nature of the disease.

Dr. Rogers said he had occasionally found the greatest difficulty in distinguishing early between cases of scarlatina and measles; so with scarlet fever and small-pox. He had heard some persons state that they were unable to decide the nature of the disease till albuminuria and dropsy had set in; but he should be glad to be informed whether those sequelæ might not attend rubeola, as well as scarlatina.

Dr. Bird said, it might be difficult to distinguish the eruptions on their first appearance, but a minute attention to the symptoms, in the course of the diseases, would be always sufficient to mark their character. Albuminuria might occur in both diseases, but that was no reason for saying that they were identical.

Dr. Richardson had observed that albuminuria frequently followed in every form of eruptive disease. It appeared under three distinct conditions:—when there was an arrest in the function of the skin and mucous membrane, more work than usual being thrown upon the kidney; when the blood was in a peculiarly fluid state; and when there was some pathological change going on in the structure of the kidney, as in old age.

Dr. Rogers did not refer to albuminuria only, but to the desquamation of the epithelial lining, which had been stated to be a positive indication of scarlatina.

Mr. Kesteven said, he had not stated that the diseases were identical, but only suggested that the two eruptions might be concurrent.

A report was then read from the Epizootic Committee, with reference to the attacks of pleuro-pneumonia on cattle in 1850-1-2.

REPORT OF EPIZOOTIC COMMITTEE.

The report stated that, in the latter part of 1852, a series of questions as to the presence, extent, symptoms, and fatality of the disease were extensively issued, and answers were received. The disease appears to have prevailed in every part of the kingdom, and to have been attended, on an average, by a fatal result to two-thirds of the attacks. The causes generally appear to be very obscure; but, in several instances, were traceable to the introduction of new stock. It was almost universally considered contagious. The symptoms, in the early stage of the disease, were so obscure, as to escape notice until a more dangerous stage had supervened, when they become easily recognizable. The treatment, on the whole, was a total failure, nor can any system now be laid down which is likely to promise a more successful result. The milk and breeding stock suffered much more severely than the fattening stock. In numerous cases, the calves suffered from the disease, and in some instances the fœtus in utero was found the subject of its ravages. High and dry localities were equally infested with the lower and more swampy; and the disease pursued its course by irregular impulses, flying from one locality to another, the intervening portions remaining

unaffected. During the latter part of 1852, the disease gradually decreased, and, by the middle of 1853, it had nearly disappeared, though, in isolated points, it still maintains its fatal and destructive power. The inquiries in connexion with this subject show that drainage was almost universally had recourse to, but irrigation was scarcely known.

Mr. E. N. Gabriel, in answer to questions from Dr. Chowne and others, stated that the plan of inoculating the tails of animals with the matter of diseased lungs had been found to be valueless in this country, and was now so considered on the continent; that he was not aware of any other epidemic in which the fœtal circulation, or the fœtus itself, was implicated to anything like the extent observable in pneumonia; that he knew of no peculiarity in diet which influenced that disease; and that contagion was generally somewhat longer in producing its effects on cattle than on man.

The Society then adjourned.

MEDICAL SOCIETY OF LONDON.

Saturday, March 29, 1856.

Dr. Chowne, President, in the Chair.

Mr. Henry Smith read a paper

ON THE EMPLOYMENT OF DILATATION AND THE ACCESSORY MEANS IN THE TREATMENT OF THE MORE OBSTINATE FORMS OF STRICTURE OF THE URETHRA.

The author gave it as his opinion that, in consequence of the great attention given of late years to the consideration of cutting operations, Surgeons had been insensibly led to place much less reliance upon the treatment of the disease by dilatation than they ought to do. The use of chloroform had also a tendency to foster the present mania for dividing strictures. The author then proceeded to discuss the merits of dilatation, and to consider the mode in which it acted. The comparatively little benefit which was produced by it in the more obstinate and contractile strictures arose, in a great measure, from hasty and insufficient attempts to dilate by using small catheters and metallic sounds—instruments in themselves well adapted to the majority of cases of stricture, but capable of doing much mischief in the class of cases he was now alluding to. Local and general irritation, to a great degree, was the result of repeated attempts to pass small metallic instruments; abscess, hæmorrhage, laceration, and occasionally death, ensued. Some cases were mentioned where fatal effects had followed the employment of catheters. He had seen so many unsatisfactory results proceeding from this treatment, that he had of late adopted the use of wax and flexible bougies in the early part of the treatment of complicated cases, and he was convinced that much more good could be effected, and that dilatation could be carried on in a more safe and effectual manner. When, however, he was able to get up to a No. 5 or 6, he had laid aside bougies, and carried on the remainder of the treatment with catheters or metallic sounds. His observations applied solely to the more intractable and complicated cases; for in the majority of instances of stricture, he would employ the catheter from the beginning of the treatment, and use it throughout with the best and speediest result. When, however, it became evident, as it would do in some of these cases, that dilatation alone would not succeed, we should not hastily resort to cutting, but call to our aid some less dangerous but yet powerful remedy, and this existed in potassa fusa, which the author had used for several years. He had found it of great service in cases where there was a dense and unyielding stricture, especially those situated in the penile portion of the canal, and which are, contrary to general recognition, by far the most undilatable. Mr. Smith wished to be particularly understood that he considered potassa fusa should only be employed as an adjunct to dilatation. The author, in conclusion, made some brief remarks on the employment of permanent and rapid dilatation. He considered that there were many cases of old callous strictures where the urinary organs were not irritable, which would be greatly benefited by these modes of treatment, whether carried on in the ordinary manner of retaining a catheter for twenty-four hours and changing the size from day to day, or by the instruments used by Mr. Thomas Wakley, which latter could undoubtedly produce most powerful and rapid dilatation. The author concluded his paper by relating some cases in which he had resorted to permanent dilatation with excellent results.

Mr. Z. Lawrence exhibited an instrument of an improved construction for applying caustic to strictures of the urethra. It consisted of an open-mouthed canula (elastic or silver), and a catgut bougie, coated at the end with caustic, which passed through the former in such a way as to cauterize the part more effectually and equally than by the ordinary method. Mr. Lawrence confirmed the opinion of Mr. Smith in reference to the disadvantages of perineal section, and the value of dilatation, aided by the application of caustic.

Mr. de Méric thought the cases mentioned by the author, in which death followed the use of the catheter, were only to be regarded as exceptional. It was, no doubt, true, as he could testify from his own experience, that unpleasant symptoms occasionally followed the employment of the silver catheter; but it was no less true, that in certain cases of stricture that instrument was preferable to the wax bougie. The author had only mentioned his successes; and these, without a knowledge of his failures, formed no safe criterion on which to found a conclusion one way or the other. He should have furnished statistical information as to the results of the various methods of treatment adopted, and the several forms of stricture for which they were employed. No operation should be rejected *in toto*, as there might be cases in which no other means could be adopted. He (Mr. De Méric) thought the author a little too severe in employing the term "mania" to the feeling that existed in favour of cutting.

Mr. Henry Thompson coincided with what the author had said respecting the efficacy of dilatation in the cure of stricture. Carefully employed, he believed, it was equal to the cure of the great majority of cases. Caustic was only an adjunct; and ought not always to be employed, as, for instance, when the deposit was of considerable extent, involving the corpus spongiosum and the erectile tissue. The cutting operation introduced by Mr. Syme was the most successful in those exceptional forms of stricture which had resisted the catheter and the application of caustic potash. He could cite many cases in which the knife had given relief to the patient after caustic potash had failed. Mr. Syme had performed the operation 140 or 150 times, and only two cases terminated fatally. He (Mr. Thompson) had performed it 8 times, and always successfully, except in the first case, which did not turn out quite so well as the others.

Mr. T. Wakley alluded to the success, especially in the provinces, which, he said, had attended the employment of the instruments which he introduced to the Society five years ago, for the rapid dilatation of stricture. He had employed these instruments in 600 cases, and had never had recourse to the application of potassa fusa.

Mr. Canton briefly expressed his concurrence in the mode of treatment recommended by the author, which he had himself successfully adopted.

The author then replied, and the Society adjourned.

Saturday, April 5, 1856.

Dr. Chowne, President, in the Chair.

Mr. Hogg mentioned the following case in which tracheotomy had been performed:—A boy, aged 11½ years, complained of sore throat, with a slight cough, on the evening of the 10th ult., a younger sister having died that day of scarlatina maligna. Medicine was prescribed, and next day the patient was much better. On the 13th, a younger brother was laid up with sore throat, and other symptoms of scarlatina. On the 14th, the elder boy again complained of his throat, and so much lassitude, that he took to his bed. The tonsil on the right side was swollen, and the fauces were of a vivid red; cough troublesome. On the 15th, the symptoms had increased considerably in both children. Dr. West was called in, and, on the 19th, the eldest boy was better in every respect, with the exception of the cough, which had then a croupy sound. This became worse towards night, when it was evident that the boy had laryngitis. Leeches were applied, and calomel and Dover's powder administered with considerable benefit; but, during the next night, respiration was so difficult, that suffocation appeared imminent. The next morning Mr. Hancock performed the operation of tra-

cheotomy, which was followed by immediate relief, and the boy continued for some time to cough up, freely, quantities of frothy mucus through the canula. Everything went on satisfactorily till the next evening, when the respiration and other symptoms were less favourable. Dr. West discovered considerable dulness about the left lung; but, before twelve o'clock, the patient's respiration became quiet. He slept till four o'clock the next morning, when respiration became very difficult, and at seven o'clock he died. *Post-mortem examination four hours after death*:—Countenance quite tranquil; warmth of surface still considerable; rigidity commencing; no lividity of depending parts; edges of the opening in the trachea quite healthy; a considerable quantity of fat beneath the surface; a small infiltration of serum about the neighbourhood of the wound. Lungs emphysematous; no adhesions of either lung; slight and recent pleurisy, with small deposits of lymph on the right upper lobe; collapse of the lower edge of the middle, impinging on lower lobe, which was in the second stage of pneumonia. Air-tubes of the right upper, much freer than the other bronchi, but containing purulent matter. Lower half of lower lobe and left lung red and hepatized as far as the inferior margin of the upper lobe. Both lungs filled with small miliary tubercles. Pericardium contained about ʒij. of transparent serum. Heart normal. No swelling about the tonsils, nor any false membrane in the œsophagus, which was perfectly healthy. Considerable œdema of mucous membrane covering the arytænoid cartilage and under-surface of epiglottis. Slight deposit on the whole larynx, which was blocked up by a thick layer of lymph, firmly adherent, about the chordæ vocales, and completely covering the mucous membrane, in a continuous layer along the trachea to its bifurcation. The mucous membrane beneath was much congested. The layer of lymph extended, and almost blocked up, the tertiary bronchi. Kidneys large, and cortical substance pale.

Mr. Henry Smith related the particulars of two cases showing the evil results of neglected phimosis occurring in advanced life. The first was that of a man between 60 and 70, who applied to Mr. Smith, at the Westminster General Dispensary, for relief of retention of urine, from which he had been suffering, more or less, for three days. On preparing to relieve him he found a small opening in the prepuce through which a probe could just be passed. It was so difficult to find the urethra that it was deemed prudent to exhibit chloroform, and at once divide the contracted prepuce. This denudation of the glans was, however, extraordinarily difficult, as the prepuce was found to be closely adherent to it and greatly thickened, and the adherent medium was very dense. By degrees the whole prepuce was dissected off the glans, and the greater portion of it was cut away; a catheter was then introduced, and the patient was relieved. It was afterwards ascertained that the prepuce had been slit up some years previously, but it had been done imperfectly, as adhesion again took place, and the patient, in consequence, had repeated attacks of retention. The second case mentioned by Mr. Smith was more serious: it was that of a man aged 60, whom he had seen in consultation, and who had always a light foreskin, but during the last twelve months pain was felt in the part, and after a suspicious connexion a discharge took place. When Mr. Smith first saw the patient there was a profuse fetid discharge coming from under the foreskin, through the opening of which a warty substance projected. The spongy body of the penis was indurated, and the pain was excessive, at night preventing sleep. The prepuce was freely slit up, and found adherent to what had been the glans penis, but which was now found to be a foul warty excreseence. This was removed with great benefit to the patient for a short time, as he could pass his water freely. The pain was relieved, but returned with the discharge in a few weeks. The induration remained. Two eminent histologists had examined the growth removed under the microscope, and thought it was not malignant. On consultation with Mr. Fergusson, however, it was deemed prudent to remove the whole penis. This was done, and the patient speedily recovered. On examination under the microscope the diseased part presented the well-known appearance of epithelioma.

A paper, by Dr. F. J. Brown, of Chatham, on

THE XIPHISTERNAL OR PERICARDIAL CHISEL-SOUND.

was read, in the absence of the author, by Dr. E. Smith, one of the Secretaries.

The author commenced by laying down the following propositions, distinguishing between facts and hypotheses:—1 (fact). A single chisel-sound is frequently heard in the lower sternal region, in persons apparently healthy. 2 (hypothesis). The sound is due to white pericardial patches, *plus* toxæmia. 3 (fact). It is usually accompanied by a certain form of dyspepsia, which disappears with it under treatment addressed to the assumed pericardial lesion. 4 (hypothesis). The attendant dyspepsia is only sympathetic. 5 (fact). The disease, of which the chisel-sound is the manifestation, is almost invariably confounded with ordinary dyspepsia, or some other disorder, although a diagnosis can readily be effected by observing the concurrence of the physical signs with the symptoms. 6 (fact). The natural course of the disease is to persist; and 7 (fact). It is not dangerous to life. 8 (fact). It requires no treatment when unaccompanied by disorder of digestion, or of any of the other natural functions. 9 (fact). When it is present with any other disease, benefit to that disease usually results from cardiac treatment. 10 (fact). It readily yields to mild antiphlogistic treatment addressed to the assumed lesion. 11 (fact). It can only be diminished, but not removed, when the heart is diseased in its valves or muscular tissue. 12 (hypothesis). The disease consists in general dyscrasia, with local perverted nutrition; the dyscrasia being allied to that of dyspepsia, gout, or rheumatism, and the local lesion consisting in milky patches on the pericardium. 13 (hypothesis). Toxæmia invariably co-exists with white patches on the pericardium, when the chisel-sound is heard. 14 (hypothesis). White patches arise either by an inflammatory or a non-inflammatory process. 15 (hypothesis). The chisel-sound does not follow upon the double-friction-sound of mild subacute pericarditis, except when dyscrasia supervenes upon the pericarditis. 16 (fact). Pericarditis, mild and limited, will occur, and will disappear without giving rise to the chisel-sound. 17 (hypothesis). The white patches on the pericardium are analogous to those observed on the liver and spleen. 18 (hypothesis). The white patches that arise from a perverted nutritive process are attended, during their formation, by hyperæmia and pain. Dr. Brown said, that he did not attempt to explain the physical cause of the chisel-sound: it was a single sound, synchronous with the systole, and resembled the noise made by a chisel or short plane used forcibly across the end of a piece of timber. It is heard at the lower part of the sternum, and over the xiphoid cartilage, and is most intense there even when it extends over the whole sternum. The extent of cardial dulness is sometimes increased towards the præcordia, but not always. The dyspepsia accompanying the chisel-sound is not amenable to stomachics and tonics, but is removed, together with the sound, by leeches, blisters, tartarized antimony, and iodide of potassium. The author related a number of illustrative cases, and concluded by desiring the assistance of the Profession to investigate the subject.

The author not being present to clear up some points on which some of the members expressed themselves "mystified," the paper excited but little discussion.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

February 31, 1856.

Dr. Barclay, V.P., in the Chair.

The sixth ordinary meeting was held this evening.

Dr. Richardson read a paper on

THE UNITY OF SANATIVE AND CURATIVE MEDICINE.

The author commenced by remarking, that since the revival of the system of preventive medicine, after a slumber of some seventeen hundred years, it had been an absurd practice to look upon prevention and cure as rival systems; not, perhaps, as absolutely antagonistic, but as systems requiring for their advancement distinct orders of mind and education. The periods of time in which the two systems had stood out in their isolated forms, indicated those when civilisation was in very different phases. The existence of a preventive system indicated a high phase of mental progress, while that

of absolute trust in a system exclusively curative showed a lower phase. This position the author proved by an extended reference to different epochs of history. He then passed on to prove, that in reality the two systems were one, and that it was mischievous to the Profession and to the public to divide them, or to place them respectively in the hands of different sects. He argued out this point on the three following grounds, bearing on the subject of the treatment of disease:—

First. That every disease arising from an external and preventible cause cannot, as a general rule, be cured until such cause is ascertained and removed.

Second. That in the majority of diseases arising from external causes there is ultimately established in the system a series of molecular changes, which continue even when the cause is removed, and which require distinct treatment of a curative kind, based on pathology and therapeutics.

Third. That in instances where the body itself is the simple seat of the disease, *i. e.*, where the cause is internal, the external chemical and physical influences to which the sufferer is subjected, may materially modify the case, in regard to its progress, its leading symptoms, and treatment. In supporting these arguments, Dr. Richardson went minutely into the subject of the effects of heat and moisture on the body, and the effects of poisons, especially those of an organic kind; he traced out the differences between the first influence of these agents on the body, and the after results. In conclusion, he proved the importance of combining the two systems of prevention and cure, by showing that, in the absence of such combination, the difficulties connected with the study of the origin of diseases could never be overcome.

The meeting then adjourned.

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Friday, April 11.

ROYAL COLLEGE OF PHYSICIANS.

Mr. Kinnaird asked the Secretary of State for the Home Department whether it was the intention of Her Majesty's Government to grant a new Charter of Incorporation and Act to the Royal College of Physicians of London; and, if so, whether they were likely to be granted during the present session of Parliament.

Sir G. Grey replied, that no decision had yet been come to on the matter.

Monday, April 14.

In Committee of Supply the following votes were taken:—£2000 for defraying expenses of the Vaccine Establishments; £9255 for the Public Infirmaries in Ireland; £1295 for the Foundling Hospital, Dublin; £1215 for the Westmoreland and Lock Hospital, Dublin; £500 for the Dublin Lying-in Hospital; £795 for Dr. Steevens' Hospital, Dublin; £1900 for the House of Recovery and Fever Hospital, Dublin; £600 for the Dublin Infirmary.

MEDICAL QUALIFICATION AND REGISTRATION BILL.

Mr. Fitzroy, in the absence of Mr. Headlam, moved the second reading of this bill, with the view of its being referred to a select committee.

It was read a second time.

On the motion of Mr. Cowper the following were nominated as the Committee on the Medical Profession Bill:—Mr. Cowper, Mr. Headlam, Mr. Brady, Mr. Craufurd, Sir William Heathcote, Mr. Napier, Lord Robert Grosvenor, Mr. Black, Colonel Dunne, Mr. Bell, Mr. Strutt, Mr. A. Hastie, Mr. Howard, and Mr. Percy.

Tuesday, April 15.

MEDICAL DEPARTMENT OF THE ARMY.

Mr. Stafford moved the appointment of a select committee to inquire into the Medical department of the army. The Government, he understood, would offer no opposition to his motion, the object of which was not to rake up the records of the past, or to revive imputations, but simply to endeavour to improve the Medical department of the army.

The motion was agreed to.

LUNATIC ASYLUMS IN IRELAND.

Mr. Horsman obtained leave to bring in a Bill to explain and amend the Acts relating to Lunatic Asylums in Ireland.

LAW INTELLIGENCE.

QUEEN'S BENCH.—Wednesday, April 16.

THE QUEEN *v.* WILLIAM PALMER.

The Attorney-General applied for a rule to show cause why the Coroner's inquisitions and bills of indictment found at the last Stafford Assizes against William Palmer, the alleged Rugeley poisoner, should not be sent for trial at the Central Criminal Court. At the close of last term their lordships granted writs of certiorari to bring the inquisitions into that Court, on the ground that the prisoner was not likely to have that calm trial at Stafford that could be desired. Since then an Act of Parliament had passed the Legislature, giving the Court power to send the case for trial at the Central Criminal Court. He therefore asked for a rule.

Lord Campbell said the Court would grant a rule. It was desirable that no unnecessary delay should take place. The Court had understood that the prisoner was anxious for the trial to take place at the Central Criminal Court.

The Attorney-General said he would see that there was no more delay than was necessary.

A rule nisi was granted.

Mr. Gray said he appeared for William Palmer, and he had to ask the Court that they would grant a rule calling upon the Solicitor to the Treasury, who had charge of the prosecution, to show or explain the tests Dr. Taylor employed in the case of John Parsons Cook, alleged to have died from the effects of strychnine, and Anne Palmer, whose death was said to have been caused by antimony. In the case of Cook it was stated that, although he was represented to have died from strychnine, none was discovered, and the prisoner averred, on the Medical authorities who instructed him, that if Dr. Taylor had used the proper tests for the detection of strychnine, and it had been administered so recently, strychnine would have presented itself. He, therefore, had to ask that they might be furnished with the tests which Dr. Taylor used, in order that they might apply them in the same way.

Lord Campbell said there would be full opportunity to ascertain the tests when Dr. Taylor was cross-examined at the trial.

Mr. Gray said if the tests were not disclosed before then they would have no time to make the experiments suggested.

Lord Campbell said the Court could not interfere.

The Attorney-General promised that every reasonable facility should be given the prisoner in ascertaining the character of the evidence that would be brought forward, but declined furnishing a list of the tests.

Rule refused.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

Malmesbury.—At a meeting of the Medical Officers of the Malmesbury Union, held April 8, 1856, it was unanimously resolved:—1. That the thanks of this meeting be given to Richard Griffin, Esq., for his exertions in the cause of Poor-law Medical Reform. 2. That this meeting is of opinion that Medical Officers should be paid out of the Consolidated Fund. 3. That Medical Officers should be placed under the control of Medical Inspectors, appointed by the Board of Health. 4. That this meeting strongly objects to that part of Mr. Griffin's plan, which allows paupers to choose their own Medical man for many very obvious reasons. 5. That Mr. Jennings be appointed Secretary and Treasurer for this locality. 6. That a subscription of 5s. per quarter, be entered into to defray necessary expenses.—J. C. S. Jennings, Honorary Secretary. Signed, A. F. W. Jeston, George Salter, J. C. S. Jennings, Edwin Smith.

Croydon.—At a meeting of the Medical Officers of the Croydon Union held on the 8th instant, the following Resolu-

tions were carried unanimously,—present Messrs. Johnson, Roper, and Tipple.—1. That this meeting considers that the movement made by Mr. Griffin to improve the position and payment of the Union Medical Officers, is deserving of their support, and that the thanks of this meeting be given to Mr. Griffin, for his exertions in their behalf. 2. That the system adopted by Boards of Guardians, generally, of endeavouring to obtain Medical Officers at the lowest possible salary, is scarcely better than the system of tender, formerly in use; for while the authorities maintain it as an argument in favour of the system, that the appointments are eagerly sought after by numerous candidates, (a statement requiring confirmation,) it places the members of the Medical Profession in the questionable position of either accepting the appointments on the terms offered, or, by a refusal, subjecting themselves to be classified with inferior mechanics as entering into a vexatious combination and opposition. 3. That the system of low remuneration depreciates the Medical Officer in the public opinion, and likewise in the opinion of the other members of the Profession, at the same time that it enervates talent and stifles energy. 4. That this meeting suggests that the salaries might be fixed on a scale as follows:—On the average number of cases in each district during the last five years at so much per case, at so much per acre, for the extent of the district, and so much for mileage, in those instances where a Medical Officer has to travel a distance to his district. The salaries to be re-adjusted every five years. 5. That we are of opinion that the Medical Officer of the Workhouse should receive remuneration for such operations and services as would be paid to a District Medical Officer. 6. That a subscription of 5s. per quarter be paid by each of the Medical Officers at this Union, to the Secretary, to defray incidental local expenses. 7. That Mr. Johnson be appointed Local Secretary. 8. That a copy of the foregoing Resolutions be be forwarded to Mr. Griffin, and to the Medical Journals. J. S. Johnson, A. G. Roper, F. A. Tipple, Frederick Hetley.

Halifax.—At a meeting of the Medical Officers of the Halifax Union, held at Halifax, on April 2, 1856; present, Mr. Brook in the chair; also Messrs. Garlick, Peacock, Robinson, Robinson, Elliott, Crowther, M'Lachlin, Nowell, Hiley, it was resolved:—1. That the thanks of this meeting be tendered to Richard Griffin, Esq., for the able services he has rendered on behalf of the Union Medical Officers of this Kingdom. 2. That this meeting indulges a hope that every Medical Officer under the Poor-law, will now step forward and render every assistance in his power in furthering the objects Mr. Griffin has in view. 3. That this meeting considers that the remuneration which has hitherto been awarded to Medical Officers, is altogether incommensurate with the extent of duty they are called upon to perform, and the supply of medicines which they must necessarily dispense. 4. That this meeting is of opinion that art. 177 of the Consolidated Order, is unsatisfactory, as in justice it ought to allow extra fees for many other important operations than those recited, and for the treatment of such Surgical cases as may require great skill, time, and labour on the part of the Medical Officer. 5. That this meeting is also of opinion that the Medical Officers of the Union Workhouses should be placed exactly on the same footing with regard to Surgical extras and extra fees for difficult cases of midwifery, as the District Medical Officers. 6. That this meeting pledges itself to support any measure which may be brought forward having for its object a more adequate remuneration for arduous services, believing as they do, that the duties of Medical Officers under the Poor-law are as important, as benevolent, and as useful to the community at large, as those of any other calling. 7. That each Medical Officer of this Union, for the present, subscribe 5s. to be transmitted to Mr. Griffin, and make such further payments as occasion may require. 8. That Mr. Peacock be appointed Honorary Treasurer and Secretary, and that he forward a copy of these Resolutions to Mr. Griffin, and to each of the Medical Journals.—W. H. Peacock.

St. Ive's.—At a meeting of the Medical Officers of the St. Ive's Union, held on the 2nd instant, it was resolved:—1. That the thanks of this meeting be tendered to Mr. Griffin, of Weymouth, for his exertions in the cause of the Union Medical Officers. 2. That Mr. Thomas Johnson be appointed to act as Secretary and Treasurer, and that he be authorized to receive 2s. 6d. per quarter from each Medical Officer for the purpose of defraying the incidental expenses. 3. That in the opinion of this meeting it is desirable—A. That the salaries be re-adjusted on a fixed ratio in proportion to the pauper population and the acreage; that it be paid wholly by Government, and only cover attendance on permanent paupers. B. That attendance on casual paupers be paid for out of the Poor-rates at so much per case, in proportion to distance. C. That the fee for midwifery cases be fixed by the Commissioners in proportion to distance, and that the schedule of remuneration should be extended to embrace all severe Surgical cases. D. That a copy of these Resolutions be sent to the Medical Journals, and to Mr. Griffin.—George L. Gerling, John Leigh; William Few, and Charles P. Bates, Medical Officers of the Ramsey Union; Charles P. Daniells; Thomas Johnson, Secretary.

Langport.—At a meeting of the Medical Officers of the Langport Union, held on March 31, the following Resolutions were unanimously agreed to:—1. That the members of this meeting agree generally in the views advanced by Mr. Griffin in improving the interests of the Union Surgeons, and will endeavour to promote those views. 2. That the present salaries are inadequate and should be revised, and increased. 3. That the payment of Union Surgeons should in future be made directly and wholly by the Government. 4. That the following plan seems to us preferable:—(1.) A certain rate per head for the permanent paupers in each parish, regard being had to its distance from the residence of the Medical Officer. 2. A fixed payment for all casual paupers, the amount being regulated at intervals of three or four years by the Poor Law Board upon application of the Medical Officer, or of the Board of Guardians. 5. That a report, as well as the thanks of this meeting, be sent to Mr. Griffin, for his exertions in aid of the Union Surgeons. 6. That a subscription of 5s., from each Union Medical Officer of this Union, be forwarded to Mr. Griffin to defray a small portion of his outlay, and that subscription shall be added to if required. 7. That Mr. Larcombe, of Langport, be appointed Treasurer, and be requested to forward the subscriptions to Mr. Griffin, and a report of this meeting to the Medical Journals. John Prankard, Thomas Plowman, Robert Culling, Clement Edkins, Hugh Norris, S. S. Larcombe, John Larcombe.

Ashton-under-Lyne.—At a meeting of Medical Officers of the Ashton-under-Lyne Union, held on the 11th of April, it was resolved:—1. That the thanks of this meeting be tendered to R. Griffin, Esq., for his exertions in promoting an improvement in Union Medical relief. 2. That a payment of 5s. be made by each Medical Officer of this Union, and repeated as occasion may require. 3. Without pledging itself to details, this meeting approves generally the principles laid down by Mr. Griffin in his circular. 4. That the above Resolutions be communicated to Mr. Griffin, and information solicited as to further proceedings. 5. That the Resolutions be forwarded to the Medical journals.

Devizes.—Resolutions unanimously adopted by a meeting of the Medical Officers of the Devizes Union:—1. That this meeting, viewing with satisfaction the movement set on foot by Mr. Griffin for the improvement of the position of the Medical Officers of the Unions throughout the Kingdom, merely expresses its willingness to co-operate with him, and generally to support him in the plans which he proposes for the attainment of such a desirable object. 2. That Mr. Thomas B. Anstie be requested to act as Secretary and Treasurer, and also to communicate with Mr. Griffin as to the further steps to be taken for the carrying out of his views. 3. That a subscription of 5s. be paid by each officer to the Secretary, and be repeated quarterly as long as may be thought necessary. 4. That this meeting is of opinion—(1). That the present rates of payment are quite inadequate to the amount of service rendered, and that some system of payment per case is best calculated to effect improvement therein: the question of distance being also duly considered. (2). That the list of payment for extras, requires to be extended, so as to include all cases requiring more than ordinary labour and responsibility. (3). That the establishment of local Dispensaries, and the employment of dispensers wherever practicable, would tend to the relief of the Medical Officers, and the more correct valuation of their services. 5. That the foregoing Resolutions be sent for insertion in the leading Medical Journals.

OBITUARY.

ISAAC HURST, Esq., F.R.C.S.

Mr. Hurst was the son of the late Rev. Isaac Hurst, of Milton Ernest, Bedfordshire, and grandson of the Rev. Robert H. Hurst, formerly Incumbent of Newton Blossomville, Bucks. He was born in 1797, and received his education at Christ's Hospital. In 1814 he commenced his professional education, as pupil of the late Charles Short, Esq., of Bedford, and in 1819 entered at Guy's and St. Thomas's Hospitals. During his Studentship at this school, his steady attention to his Professional pursuits attracted the notice of Sir Astley Cooper, with whom he became a favourite pupil. He was often entrusted to put up anatomical preparations, and not unfrequently he was taken by Sir Astley to see interesting cases in his private practice. The following Testimonial, which was presented to Mr. Hurst at the termination of his studies in London, will show the high estimation in which he was held by that distinguished Surgeon. It is not an ordinary form of Testimonial, and may, therefore, claim notice in this place:—

"It is with singular pleasure I bear testimony to the professional and moral character of Mr. Isaac Hurst.

"His zeal in the pursuit of science is unbounded, his attainments in practical knowledge are greater than those of any other person of his age I have had the pleasure to instruct. Also diffident, gentle, and humane, he is peculiarly qualified to practise a Profession which requires skill, attention, and humanity. "Astley Cooper.

"London, July 6, 1823."

On leaving London, he became an assistant of the late Dr. Andrews, of Watford, to whom he was strongly recommended by Sir Astley Cooper. In this situation, Mr. Short, with whom he had served his apprenticeship, expressed a strong wish for him to join him in his practice, which he did, first as assistant, and afterwards as partner. On the retirement of his much-respected partner, Mr. Hurst was appointed his successor as one of the Surgeons to the Bedford Infirmary. He held this post until last year, when he relinquished the active duties of his Profession, and was appointed a Consulting-Surgeon to that Institution.

For some years past, he has been joined in partnership by Mr. Robert Couchman, nephew of his first tutor and subsequent partner, the late Mr. Charles Short.

After the new charter had been granted to the Royal College of Surgeons, Mr. Hurst was inserted in the first list of Provincial Surgeons upon whom the honorary distinction of Fellow of the College was conferred.

About a year and a-half ago, symptoms of *ramollissement* of the brain began to show themselves, and Mr. Hurst gradually withdrew from practice. During the last few months he was seized, on three occasions, with strong convulsions; from the last of these attacks, on the 30th March, he never thoroughly rallied.

The distinguishing characteristics of this lamented gentleman were, his ardent love of the practice of his Profession, and his kind and liberal conduct towards every one with whom he came in contact. His love of his Profession was unbounded, and his practice of it was self-denying and laborious in the extreme.

During the last few years, he was often called in consultation by his fellow-practitioners in the town and county of Bedford, and even in the neighbouring counties. From the first he had enjoyed an extensive general practice, consequently he had seen very much in all the departments of the Profession; his mind was a rich store-house of large experience, and his judgment greatly to be relied upon.

When the writer of this short sketch was conversing with him from time to time, upon certain important points of practice, Mr. Hurst has often expressed regret that he had never made any record of interesting cases which had come under his observation. Few Practitioners, during the last thirty years, have had ampler opportunities of enriching the practical Medical literature of the day; and it is a source of regret that the results of his extensive experience should not have been communicated to others than his own immediate Medical friends.

His unvarying kindness to every one, and particularly to his Professional brethren, was a pre-eminent characteristic of the deceased. The young Medical Practitioner looked up to him as a steady and unwavering friend, ready with his assistance and advice in every emergency. These services were frequently rendered without any fee or any reward except the gratitude of his Professional brother and of the patient. Any difficulty which might present itself in the practice of his brother-Surgeon, whether the patient were rich and could pay a fee, or whether he were poor and penniless, would equally claim his best and most willing services. He was especially jealous, too, of the reputation of his brethren, and would most tenderly guard it from any imputation of unskilfulness. He scorned anything like an approach to meanness, and would practise nothing but the most straightforward and honourable mode of rivalry. At any time he would rather generously give up a patient than supplant a brother-Practitioner in public estimation. He has been known voluntarily to act as mediator between patient and Medical attendant, (to the former of whom he had been professionally called,) when some misunderstanding had arisen. He has succeeded in reconciling the parties, rather than attempt to widen the breach for any selfish ends. On such occasions he would say, "My dear Sir, God knows that I would rather give you a dozen of my patients if I could, than take one of your own." Medical etiquette, in Mr. Hurst's practice, was reduced to its utmost and primitive simplicity; for the ruling principle of his Professional as well as of his social life was solely, "To do unto others as he would that others should do unto himself."

Beloved by all who knew him, he has gone from the scene of his valuable labours, and has left behind him a bright example of unselfish and generous devotion to his Profession, which it will be well for every one of us to imitate.—(See p. 402.)

ALFRED H. CHERRY, ESQ.

Mr. Cherry entered early in life as a student at the Borough Hospitals, where he availed himself of the advantages these noble institutions afford for acquiring Medical knowledge. In 1843 he proceeded to Edinburgh, to study the Veterinary Art, under Professor Dick; where he quickly obtained his diploma. He returned to London, to finish his Medical education at St. Thomas's, where he dressed under Mr. Green, with a view to becoming a member of the Royal College of Surgeons. A commission however awaited him as Veterinary Surgeon to Her Majesty's 17th Regiment of Lancers; and in September, 1846, he joined the quarters of his Regiment at Canterbury.

He served for several years in Ireland; and, in June, 1854, he was appointed one of the commission under the command of Colonel Kinlock, to proceed to Spain to purchase Mules for the service of the Army in the Crimea. During his travels, the previous Medical knowledge he had obtained rendered him eminently serviceable to the officers and men employed on this duty, who were more or less attacked with illness, besides propitiating the jealous and bigotted Spaniards, by rendering to them Medical aid, and thus materially advancing the object of the commission. On his arrival at Valencia, the cholera was raging with intensity, and many of the Spanish Doctors had fled from the pestilence; those that remained, with whom he came in contact, were administering to their patients most ridiculous remedies, principally syrup of saffron and inert confections. He promptly adopted the English methods of treatment with most marked success, saving many patients.

From this port he embarked with the last detachment of mules for the Crimea. His services in this duty elicited the most marked approval from the late Lord Raglan, as well as from the Home authorities. He remained in the Crimea as Staff-Veterinary Surgeon, till, suffering from acute rheumatism brought on by exposure and fatigue, he was invalided by a Medical Board, and sent home to recruit his shattered health.

Having partially recovered, he applied to be sent out again, and exchanged into the 1st Royal Dragoons, with whom he did duty, until attacked with fever at the winter quarters of the Cavalry at Scutari. Here he met with Mrs. Roberts, the well-known "Sister George," late of St. Thomas's. This excellent and clever woman, after superintending the accident ward at St. Thomas's for many years, retired on a pension; but, when the tale of misery came home, that our brave Army was melting away before disease, incompetence, and neglect,

and Miss Nightingale flew to the rescue, "Sister George" volunteered her valuable services, and at once became this lady's right hand. She received the young soldier in Hospital, and nursed him with even a mother's care. She closed his eyes in death, and had the melancholy satisfaction of rendering to him those kind services he had so often rendered to others. (See below.)

MEDICAL NEWS.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 10, 1856 :—

ANGUS, JOHN, 66, Frith-street, Aberdeen.
ARMINSON, WILLIAM BROWN, Garstang, Lancashire.
DUFFIN, ALFRED B., 14, Langham-place, London.
FENDER, THOMAS, Alnwick, Northumberland.
GRAY, JAMES FOSTER, Leicester.
GREEN, JOHN HUGHLINGS JACKSON, Hamerton, York.
PORTER, WILLIAM ELLIOTT, Sandown, Isle of Wight.
SLAUGHTER, CHARLES HENRY, Farningham, Kent.

APPOINTMENT.

DR. R. WILBRAHAM FALCONER has been elected Physician to the Bath General Hospital, in the room of Dr. Burne resigned.

DEATHS.

CHERRY.—March 7, at Seutari, Alfred H. Cherry, Esq., aged 32, Veterinary Surgeon 1st Royal Dragoons; youngest son of the late Frederick C. Cherry, Esq., Principal Veterinary Surgeon to the Army.

COYTE.—March 12, at Polstead Rectory, William Coyte, Esq., M.R.C.S., second son of the Rev. James Coyte, in his 31st year.

EDMUNDS.—March 22, at Spring Hall, Mahaica, Demerara, after three days' illness, Edward Edmunds, Esq., M.R.C.S., formerly of Worthing, Sussex, aged 38.

HULL.—Recently, at Norwich, Robert Hull, Esq., M.D., aged 61. M.D. (Lambeth); Ext. L.R.C.P.; M.R.C.S.E. 1816; Physician to the Norfolk and Norwich Eye Infirmary; late Physician to the Norfolk and Norwich Hospital. Author of, 1. "Cursory Notes on the Morbid Eye;" 2. "Essays on Determination of Blood to the Head;" 3. "Suggestions on Consumption." Contributed Papers in many Medical Periodicals.

HURST.—April 9, at Bedford, at the residence of his brother, George Hurst, Esq, Mayor of Bedford, Isaac Hurst, Esq., M.R.C.S.E. 1820; F.R.C.S. Eng. (Hon.) 1843; late Surgeon to the Bedford General Infirmary.

MARISCHAL COLLEGE AND UNIVERSITY, ABERDEEN.—On Thursday, April 10, after the usual examinations, the degree of M.D. was conferred on the following gentlemen, viz. :—

BLAIKIE, JAMES, Aberdeen.
GAMACK, ALEXANDER, Peterhead.
LESLIE, LOUIS, Alton.
MOYSEY, NICHOLAS, Devon.
PARK, MUNGO, Essex.
PHIPPS, J. G., London.
RIGBY, G. O., Preston.

And the degree of M.B. on the following :—

AVELING, J. H., Yorkshire.
FRASER, J. T., H.E.I.C.S.
HENDERSON, T. B., Lanarkshire.
KEESS, JAMES, H.E.I.C.S. (Madras College).

METROPOLITAN FREE HOSPITAL.—The annual festival of this Institution was held on Monday evening at the London Tavern. About a hundred gentlemen sat down to dinner. The chair was filled by the Lord Mayor. The dinner was served in excellent style. The cloth having been removed, and the usual loyal and patriotic toasts having been duly proposed and honoured, the Lord Mayor rose to call the especial attention of the company to the interesting institution they were then met to support. He said, many institutions of this kind existed in London and elsewhere, supported without Government aid, and entirely by the voluntary contributions of benevolent persons. (Hear, hear.) It would give an idea of the necessity of such institutions, and the benefits they effect, if he stated that during the last year no fewer than 22,403 new patients were treated in the Metropolitan Free Hospital (cheers); and that the number of patients in general attendance during that period was 57,273. Now, let them remember, that this was only one of the many similar institutions at work, all instituted for the same benevolent purpose—(Hear, hear)—all having the same intention of extending relief to the sick and suffering; and when they looked to the numbers relieved by the Metropolitan Free Hospital, he should think that there was none of these Hospitals more deserving of public attention and support than it. (Hear, hear.) There were they met, in the very heart of the district in which the Institution distributed its assistance—a district abounding in poor connected with the trading classes, and poor also belonging to the Jewish persuasion—(Hear, hear)—many members of the Jewish community received relief from that Institution; for it was an interesting feature in it, and in many others, to be catholic and comprehensive in their operations. (Cheers.) Sickness knew no difference of country or creed. It was the lot of all to feel pain, and feeling pain themselves, they could sympathise with their suffering neighbours, and were more inclined to assist each other. That large amount of kindly feeling which existed in this country between class and class, between the poor and rich, between persons of different political and religious opinions, was, in a great measure, due, he believed, to the influence of institutions such as the Metropolitan Free Hospital. He would beg them to join him in drinking a bumper to the prosperity of the Institution. The toast was received with very warm demonstrations. Other toasts were duly honoured. A selection of vocal music was performed during the evening, under the direction of Mr. Genge. The amount of the subscription-lists handed in by the Stewards, and of the donations received, was announced by the Secretary (Mr. C. Nash) as having reached £1574.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—The Annual General Meeting of the Governors was held at the Hospital, on Tuesday, the 15th instant, Mr. Labouchere, the Treasurer, in the Chair. It appeared from the Report that the number of admissions during the past year was 9974, and that the number of out-patients admitted from the 1st of January, to the 25th of March, 1856, was 2196, being an increase of 514 over the corresponding quarter of last year. A Resolution, which is published below, conveying a tribute of respect to the memory of the late Mr. Richard Battley, was adopted, and also a vote of thanks to the Committee for the effective manner in which the recent improvements for extending the accommodations for the patients has been carried out, the expense of which is estimated at £2500, to meet which the special, and other recent contributions, were only £1200. From the cash account it appeared that the ordinary annual income was less than the expenditure, by upwards of £500. Several Resolutions of the usual description were passed, and the meeting separated.—"Resolved,—That this meeting most gratefully acknowledges the eminent services to this Hospital of the late Mr. Richard Battley; that to his energy and perseverance are attributable, more especially, the establishment of the Hospital; that in its origin, when checked by impediments and surrounded by difficulties, it was fostered by his influence and exertions, and, in the arduous circumstances which ensued, and continued during many years, was succoured and sustained by his active zeal; and that it is especially to be recorded, that he upheld the Institution by an undeviating regard to the Professional appointments, by which the Hospital has been distinguished from its foundation. That this Memorial be engrossed, and placed in the Committee-room of this Hospital, with the portraits of his early friends Saunders and Farre. That a copy of this Resolution be presented by the Chairman to Mrs. Battley, with the expression of the condolence of the friends and supporters of this Hospital now assembled."

SEAMEN'S HOSPITAL SOCIETY.—On Saturday, the Thirty-fifth Anniversary Festival of the Society was held at the London Tavern, Bishopsgate-street. Sir Charles Wood, M.P., First Lord of the Admiralty, presided. The report of the Society went to show :—Number received into the Hospital

during the past year, 2130; under cure and convaleseent, January 31, 1855, 169: total, 2299. Of whieh diseharged cured, 1382; convaleseent, 143; relieved, 204; not eured, 12; absent, from Surgeon's leave, 46; eonveyed to their homes, 4; without certificates of good eonduet, 124; expelled 30; died, 155; under eure and convaleseent, 199: total, 2229. Admitted as out-patients, 1650; elothed after being eured, 85. The festival went off with that *éclat* whieh generally characterizes the anniversaries of the Society.

A companion to the great ship Dreadnought, now stationed off Greenwieh for the reception of siek and wounded seamen, is about to be moored off Woolwieh, as Government has determined on presenting a three-deeker to the Seamen's Hospital Society.

The Surgery at Fort Pitt Hospital, Chatham, is to undergo some extensive alterations and improvements, in order to afford superior aeeommodation for the large number of Medical Officers stationed at that establishment.

At the Levee on Tuesday, the following presentations took plaee:—Assistant-Surgeon J. S. Bush, Dr. Dalton, Mr. Domville, Dr. Gallagher, R.N., Surgeon Gilborne, 89th Regiment, Assistant-Surgeon A. P. Glass, Dr. M. Hamilton, R.N., Dr. W. C. Hood, Assistant-Surgeon J. Jones, Assistant-Surgeon J. Coote, Staff-Surgeon Parry, Dr. White, Assistant-Surgeon T. H. Woodward.

M. Jobert's Election at the Academie des Sciences.—The reeent eleetion of M. Jobert was very elosely eontested; the number of voters present were 57, and a majority of 29 was requisite. At the first ballot, M. Jobert obtained 23, M. Longet 18, and M. Cruveilhier 13. At the seeond, M. Jobert obtained 28, M. Longet 23, and M. Cruveilhier 6 votes. At the third, the numbers were Jobert 29, Longet 28.

Academie de Medicine.—M. Wurtz has been elected into the seetion of Physics and Medical Chemistry, obtaining 50 votes out of 68.

At the Liverpool Court of Passage, on Monday, a seafaring man brought an action against Messrs. Startup and Brown, two well-known celebrities, who profess to eure every imaginable disease. The plaintiff, it appeared, went to be eured on the "no-eure, no-pay principle," and was so saturated with mercury that he nearly lost his life. The jury awarded 30*l.* damages.

Quintuple Birth.—On Sunday, Mrs. Phin, wife of Edward Phin, a guard in the service of the North Western Company, Birmingham, was safely delivered of five children—three boys, alive and doing well, and two girls born dead.

Mortality at the Paris Lying-in Hospitals, in 1854 and 1855.—M. A. Thierry furnishes the following figures from official sourees:—

The Clinique	2880 deliveries;	101 deaths,	or 1 in 28½.
The Maternité	5759 ,,	316 ,,	or 1 in 18.
Total	8639	417	or 1 in 20½.

Population of Algeria.—Some interesting facts have reeently been published by the Freneh Government. The population of Algeria, at the end of 1854, amounted to 151,691 Europeans, of which number there were—50,662 males; 30,112 females; 51,613 young persons under 15; 8,304 not specified. Of these 151,691 inhabitants 79,577 were Freneh, and the remainder natives of various countries, those of Spain numbering 39,339, and the English only 434. The indigenous tribes numbered 2,056,098, viz.:—625,296 males; 630,800 females; 800,202 under 15. During the three last years there had taken plaee among the Europeans 17,687 births and 19,004 deaths. With a very small proportion of aged persons, the mortality in several loealities had been mueh greater among the Europeans than that of France during the eholera year, 1849; this mortality being considerably less among the other Europeans than among the Freneh inhabitants. The mortality among the Freneh is also on the increase. Thus it was—

In 1842—1844 44·3 per 1000
,, 1845—1847 46·0 ,, ,,
,, 1848—1850 67·6 ,, ,,
,, 1851—1853 47·9 ,, ,,

giving a mean of 51·6 per 1000, or 1 death in 19·3 inhabitants.

Mortality Notabilia.—In the week that ended on Saturday, the deaths of 1115 persons, viz., 555 males and 560 females, were registered in London. The average number in the ten corresponding weeks of the years 1846—55 was 1079, and if this is raised in a certain proportion, according to increase of population, it becomes 1187. The deaths of last week are, therefore, less by 72 than the rate of mortality which ruled in corresponding weeks would have produced. The deaths arising from diseases of the organs of respiration, which, under the influence of eold weather in Mareh had increased to 281 in a week, did not exceed last week 218. Bronehitis had declined to 115. Phthisis caused 122 deaths; in four previous weeks it ranged above 140. Hooping-eough was rather more fatal than it had been for some time previous; 62 children died of it, besides 8 that died of croup. The mortality of zymotic diseases in the aggregate is at present very near the average. Among other causes of death may be mentioned caneer, which was fatal in 27 eases; epilepsy in 10.

Meteorology.—The mean height of the barometer in the week was 29·272 in. The highest reading in the week was 29·56 in. on Friday. The mean temperature of the air was 47·1°, which is 2·3° above the average of the same week in 38 years (as determined by Mr. Glaisher). The mean temperature of Sunday the 6th was 42·3°; that of Saturday 51·1°, having increased almost continuously throughout the week. The *highest* reading was 61·1°, and occurred on Saturday; the *lowest* was 36°, and occurred on Monday. The mean dew-point temperature was 41·5°, and the differenee between this and the mean air temperature was 5·6°. The mean temperature of the water of the Thames was 49·6°; its temperature ranged from 46·9° to 52·5°. Wind south-east and south-west. Rain 0·57 in. Horizontal movement of air, 1480 miles.

The following are the number of Deaths from Small-pox, Measles, Searlatina, Hooping-eough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	4	3	7	1	5
North	490,396	5	9	9	14	4	15
Central ..	393,256	..	7	4	10	2	7
East.....	485,522	5	7	5	8	1	13
South	616,635	3	10	8	23	5	6
Total..	2,362,236	14	37	29	62	13	46

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, April* 12, 1856.

Causes of Death.	In the Week ending Saturday, April 12, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 47·1						° 45·5
All Causes	1115	538	153	159	210	48	1078·8
Specified Causes	1107	537	153	159	210	48	1074·4
Diseases:—							
1. Zymotic Class	235	178	21	20	15	1	215·3
2. Dropsy, Cancer, and others of uncertain seat	57	6	6	21	21	3	45·0
3. Tubercular Class	179	76	62	33	8	..	208·3
4. Of Brain, Nerves, etc. ..	143	58	19	18	40	8	128·9
5. Of Heart, etc.	37	6	4	11	16	..	42·5
6. Of Respiratory Organs ..	218	120	16	27	48	7	209·6
7. Of Digestive Organs ..	53	24	2	13	14	..	60·0
8. Of Kidneys, etc.	15	..	5	5	5	..	12·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	7	..	5	2	..	..	8·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	2	3	..	1	..	7·7
11. Of Skin, etc.	3	..	..	1	1	1	2·0
12. Malformations	5	5	..	..	..	..	3·3
13. Debility from Premature Birth, etc.	28	28	..	..	..	..	26·2
14. Atrophy	26	13	..	1	12	..	26·7
15. Age	51	..	..	..	23	28	47·6
16. Sudden	3	1	..	1	1	..	7·0
17. Violence, Privation, etc..	41	20	10	6	5	..	23·4
Causes not specified.. ..	8	1	..	..	..	..	4·4

DEATHS IN PUBLIC INSTITUTIONS for the Week ending April 12:—

	Males.	Females.	Total.
Workhouses	72	87	159
Prisons	..	..	..
Military and Naval Asylums ..	7	..	7
General Hospitals	29	20	49
Hospitals for Special Diseases ..	10	3	13
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	3	..	3
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	4	10	14
Total	125	120	245

BOOKS RECEIVED.

Records of Obstetric Consultation Practice. By Edward Copeman, M.D., F.R.C.S. London: Churchill. 1856.

An Essay on Intermittent and Bilious Remittent Fevers. By E. S. Gaillard, M.D. Charleston. 1856.

Charleston Medical Journal and Review. March. 1856.

TO CORRESPONDENTS.

We shall publish, next week, an Original Communication by Dr. Brown-Séquard, being a summary of the paper for which the Académie des Sciences in Paris presented that gentleman with the Prize of Experimental Physiology for the year 1855.

Mr. P. McGowran, Coothill, Ireland, will receive a private note.

A Subscriber.—We are not aware of any free Hospital devoted exclusively to the diseases mentioned.

O. P.—The examination is practically the same, but the examiners would, no doubt, take into consideration the fact that the candidate had already been practising for several years with legal qualifications.

Syntax.—A M.R.C.S. England, having no other qualification, may attend Midwifery cases, and recover his fees.

A Subscriber will find the information he requires in our Advertising columns.

A Reader.—A new edition will probably appear about October.

Ulex, Stamf-Feld, and others.—The subject being one of a commercial nature, we advise our Correspondents to write to the Publisher of the Journal.

Leuchæmia.—We must decline to publish the reply to Dr. Murchison's communication, unless it be accompanied by the name of the writer. The subject is a scientific one, and is of general interest to the Profession, and there is no reason whatever to prevent the discussion from being carried on openly.

The letter of *Lancastria* is omitted this week for want of space.

Medico-Chirurgus.—The Royal College of Physicians, the University of London, the Society of Apothecaries, the University of Aberdeen, the University of St. Andrew's, and most of the other examining bodies, supply us regularly with the names of those gentlemen who have passed the respective examinations; but some irregularity has occurred in the transmission of the lists from the Royal College of Surgeons, for which we are unable, at present, to account. We will, however, make further inquiries upon the subject.

A Student.—The Course on Practical Chemistry must be attended in the second Summer Session. The College of Surgeons does not require attendance upon botanical Lectures.

We are requested to announce that, on the 15th instant, at Temple-row, Birmingham, the wife of Oliver Pemberton, Esq., was delivered of a son.

The following letter has been forwarded to us by a "Devonshire Correspondent," and we insert it as an ingenious specimen of "the Puff Oblique":—

THE ROYAL BIRTH IN FRANCE.

"They manage these things better in France."

TO THE EDITOR OF THE EXETER AND PLYMOUTH GAZETTE.

The joy of a child being born into the world is often witnessed in humble cottages; but the birth of an heir to the Imperial Throne of France has of late spread a halo of happiness over many a palace, to the great delight of our gallant allies and neighbours; consequently, I take this opportunity of bringing before the notice of your readers the superior knowledge and practice of French accoucheurs in contrast with the melancholy termination of the accouchement of our much lamented Princess Charlotte, whose life was most probably sacrificed by not finding "the right man in the right place." Now, where no difficulties occur there is but little demand for skill; not so, however, when obstacles present themselves. The fifteenth volume of the memoirs of the Imperial Academy of Medicine relates the very interesting history of Antoine Dubois, the accoucheur of the Empress Marie Louise, who had been selected for his thorough knowledge of this most important branch of our art. Her delivery presented such difficulties as to require the assistance of instruments. Antoine Dubois urgently requested an interview with the Emperor, who at that moment was in a bath, when he was peremptorily commanded to save the life of the Empress, and to act as he would towards his baker's wife. The man of science, thus armed with authority, conducted the accouchement with all the skill and judgment for which he was so distinguished, and the results were the safe delivery of the Empress and the happy birth of Napoleon the Second. Although the political horizon of France has experienced many changes since that period, medical science, in every branch, has never ceased to progress, for merit has there always been recognised as the only qualification for appointments and promotions, from the humble student to the dignified professor. Forty-five years have rolled on and Napoleon the Third, the greatest benefactor to the French nation, has had his wishes and hopes realised by the birth of a Prince, and the son of Antoine Dubois was selected for accoucheur to the Empress Eugenie, whose safe delivery has also required the assistance of instruments, with what success the world is aware. Having studied for two years at the Parisian hospitals, and having had more than twenty years' experience of the correctness of their precepts and methods in this branch of our art, (which I regret to say are not generally known or adopted in England,) I cannot too strongly recommend to the Medical Profession and the public the French method of applying instruments, as it is so much more easy of execution, and safer in performance. During twenty-six years' experience I have invariably followed their precepts with unfailing success, indeed, in upwards of 2000 deliveries, without losing a single woman in childbirth. French literature in this department of our Profession must ever be regarded as the most perfect model which has ever been written for the benefit of the human race. In bringing this subject so prominently before you, I hope you will deem I have the public weal more at heart than my own glorification, and sincerely believing it is the duty of all to add their mite towards increasing the happiness of our fellow-creatures,

I remain, yours faithfully, ———

COMMUNICATIONS have been received from—

Dr. SIEVEKING; L. O.; Mr. R. M. NUNN; ULEX; Dr. GEORGE OGILVIE; Mr. JOHN BASSETT; Mr. J. C. S. JENNINGS; Mr. HENRY GRAMSHAW; Mr. R. G. HARDWICK; A SUBSCRIBER; M.D.; STAMF-FELD; Mr. G. A. HUTTON, Graham's Town; Mr. J. S. JOHNSON; Mr. C. GORDELIER; LANCASTRIA; IGNOTUS; Dr. HERBERT BARKER; Mr. W. H. PEACOCK; H. B. E.; Dr. PEACOCK; the ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS; MEDICO-CHIRURGUS; Dr. RAMSKILL; Mr. J. LARCOMBE; Mr. F. C. MALLALIEU; Mr. J. Z. LAURENCE; Mr. THOS. JOHNSON; Dr. FALCONER; THE ROYAL INSTITUTION; Dr. BEALE; Mr. WARD; Dr. RADCLIFFE; Dr. BROWN-SEQUARD, Paris; Mr. OLIVER PEMBERTON; O. P.; SYNTAX; M. CARSTEN HOLTHOUSE; A SUBSCRIBER; A CONSTANT READER; MR. THOMAS B. AUSTIN; Mr. SHAW; Mr. BIRKETT; Mr. HALFORD, Liverpool Royal Infirmary; Mr. WINTER, Brighton; Mr. MORETON, Stafford; Dr. OGLE; Dr. MANTELL; Mr. SKINNER; Mr. GASCOYEN; Mr. MORRIS; Mr. HOLMES, St. George's; Dr. WILLIAMS.

APPOINTMENTS FOR THE WEEK.

APRIL 19. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: Mr. T. Hunt "On Purpura."

ROYAL INSTITUTION, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."

21. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.

ROYAL INSTITUTION, 9 p.m.: Dr. Sandwith "On the Siege of Kars."

STATISTICAL SOCIETY, 8 p.m.

CHEMICAL SOCIETY, 8 p.m.

22. *Tuesday.*

Operations at Guy's, 1 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m.: Professor Huxley "On Physiology and Comparative Anatomy."

ZOOLOGICAL SOCIETY, 9 p.m.

23. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

HUNTERIAN SOCIETY, 8 p.m.: Mr. C. Ray "On Œdema of the left leg only, from Compression of the Abdominal Vessels, by Cancerous Growth."

NORTH LONDON MEDICAL SOCIETY, 8 p.m.: Mr. Norman "On Gonorrhœa."

GEOLOGICAL SOCIETY, 8 p.m.

ROYAL SOCIETY OF LITERATURE, 3 p.m. *Anniversary.*

24. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

ROYAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."

25. *Friday.*

Operations at the London, 1½ p.m.; Moorfields' Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8½ p.m.: W. B. Donne, Esq., "The Works of Chaucer, considered as Historical Illustrations of England in the 14th Century."

ORIGINAL LECTURES.

A COURSE OF LECTURES
ON THE
NATURE AND TREATMENT OF THE DISEASES OF THE EAR.
DELIVERED AT
St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.
Aural Surgeon to the Hospital and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

Gentlemen,—In commencing a systematic course of lectures upon the diseases of the ear, the first, I believe, that has been delivered in any country, I feel that no few difficulties beset me.

The subject of aural surgery has hitherto been so little understood, that the great mass of Medical men look upon it as a blank in medical science; and further than this, many members of the Profession seem to have arrived at the conclusion, that from the serious difficulties that surround the prosecution of the subject, it can never be raised from its present degraded state.

Now, if we look carefully into the history of the rise and progress of Aural Surgery as a separate branch of medical science, we shall find that the cause of our ignorance of the subject may be traced to the fact, that, unlike any other branch of surgery, the study of its pathology has been wholly neglected. We may, indeed, advance a step further, and assert that the neglect of the study of the pathology of the ear has led to an ignorance respecting the structure and functions of some of the most important parts of the organ.

It is a question for consideration, whether there are any inherent difficulties calculated to prevent the subject of aural surgery being as thoroughly understood as are other branches of surgery. This question has been answered in the affirmative by some, on the ground of the deep and hidden situation of the larger part of the organ and the extreme intricacy of its structure. But surely the organ of hearing is not so much concealed from view as are several other organs, (the heart for instance,) of whose diseases we have a very clear knowledge, nor is its structure more complicated than that of the eye. The result of my own experience, and I think also of those who have carefully attended to my practice at St. Mary's Hospital is, that the diseases of the ear are not more difficult to diagnose, nor are they on the whole less amenable to treatment, than are the diseases of the eye, the diseases of the joints, or of almost any other organ that can be named.

When I turned my attention to the study of the diseases of the ear, I resolved, in the first place, to prosecute laboriously researches into the pathology of the organ. From that time to the present I have made nearly 2000 dissections; and, although it must be manifest that this number is small compared to that which is required for the thorough elucidation of the subject, still I feel that it is sufficient to enable us to lay a solid foundation upon which to build a rational system of Aural Surgery.

Fully aware of the difficulties attendant upon the attempt to obtain specimens from those deaf persons who had been inspected during life, and whose histories had been recorded, I resolved, in the first place, to dissect every ear that I could obtain, in order to ascertain what are the most common morbid conditions to which the organ of hearing is subject; in fact, to secure one step first, by ascertaining something of the morbid anatomy of the ear, before advancing to a consideration of its pathology. The result of my investigations into the morbid anatomy of the ear was to establish this general fact: that the diseases of the ear, up to that time considered the most common, were in reality very rare, and that the existence of some of the most frequent and most important affections of the ear had not even been imagined. Having established certain general principles respecting the morbid anatomy of the ear, my next step was to pursue its pathology. This was effected, in the first place, by prosecuting inquiries into the history of the patients whose ears were found to be diseased; secondly, by dissecting the ears of deaf persons, supplied to me by Medical men, and comparing them with the notes of the cases which accompanied them; and thirdly, I have had the opportunity, during some years, of inspecting all the deaf persons in an Institution containing more than 2000 individuals, of recording their cases, and then of making dissections of the organ of hearing in those who died. By these means, and by the facilities I possessed at the public Institutions to which I have been attached, but especially at St. Mary's Hospital, of conducting post-mortem inspections of the patients attended by me, I have been able to associate the symptoms occurring during life, the appearances of the organ, and the history of the case with the morbid appearances found after death.

Armed with the information thus obtained, I took notes of every case of deafness that came before me in public and private practice, and the result of all I have been able to learn I now propose to lay before you.

Previous to entering *seriatim* upon a consideration of the diseases of the several divisions of the organ of hearing, I will draw your attention to two subjects, viz., the mode to be adopted to obtain a complete history of a case of aural disease; and, secondly, the plans for removing the organ of hearing and of dissecting it for the purposes of pathological research.

The following plan for eliciting all the important particulars with which it is requisite for a Surgeon to be acquainted when endeavouring to form a diagnosis in a case of disease of the ear, has been pursued by me during many years in every case that I have treated in Hospital or private practice. It will not, therefore, be imagined that its use is not attended by much labour, or that much time is required for its practice. As it is desirable that it should be carried out by those studying the subject, I will describe it under its several heads:—

1. The age and occupation of patient.
2. State of health, temperament, condition of pulse, etc.
3. If any relatives are deaf, name them.
4. History of the affection; duration; supposed cause. *Former symptoms:* if at any time pain in the ears or head. *Nature of progress*, whether rapid or slow; if it has increased by sudden paroxysms or by imperceptible degrees. *Present symptoms:* if pain, noises, or discharge; amount of hearing power as shown by conversation, whether the patient require to be spoken to distinctly in a room, or within the distance of a yard, or close to the ear; which ear is the worse. *Causes aggravating the deafness:* a cold, cold or moist weather, bodily fatigue, or mental excitement, the act of mastication. *Causes producing improvement:* improved health, dry air, a cold, cold weather, warm weather.
5. Result of examination.

Right ear. The distance at which the watch is heard (a).

Meatus: quantity and condition of the cerumen; state of the dermis.

Membrana tympani: surface dull or shining, transparent or opaque, state of the triangular bright spot, if more or less concave than natural.

Eustachian tube; if air is heard by means of the otoscope to enter the tympanic cavity naturally during deglutition, the nose and mouth being closed; if the air is heard to enter the tympanic cavity naturally during a forcible attempt at expiration with the nose and mouth held closed.

Left ear ditto.

State of the mucous membrane of the fauces.

6. Previous treatment.
7. Diagnosis.

Although this enumeration at length of all the points which require filling up would lead to the idea that the use of this plan must be attended with considerable trouble, in actual practice you will find it otherwise, as numerous abbreviations may be resorted to. I will now introduce a case taken upon the above plan:—

F. R., aged 43, an architect. H. (Health:) tolerable, but subject to attacks of sore throat. R. D. (Relations who are deaf.)—A brother and sister were both deaf when young, but quite recovered before reaching 20 years of age.

H. (History.)—When a boy suffered from earache, which was

(a) The Medical man should ascertain the distance at which his watch is usually heard by persons whose hearing power is supposed to be perfect. The hearing distance with my own watch is about three feet. The watch should be gradually brought towards the ear, instead of being withdrawn from it.

often followed by deafness, and sometimes by discharge from each ear. Subsequently the attacks of earache ceased, but he has ever since been subject to fits of deafness, which have usually come on during an attack of cold, and have lasted for periods varying from two to several weeks. During these attacks the power of hearing has been so much diminished that he could only hear a loud voice within the distance of half a yard. Each attack has usually disappeared with the occurrence of a sudden crack in the ear. The present attack came on six months ago after a bad cold; it has been slightly relieved on one or two occasions, but the deafness speedily returned. At the present time he requires to be spoken to in a loud voice within a yard of the ear, and there is a constant singing and a sensation of pressure in the ears, and weight on the head.

P. T. (Previous Treatment.)—The application of glycerine to the meatus; syringing with warm water, blisters behind the ears; the use of the Eustachian catheter and of a pump over the ears. Result.—No benefit. Result of examination.—R.E. (Right ear:)—M. E. (meatus externus) contained cerumen in a normal quantity and consistence. M. T. (Membrana tympani)—Outer surface glassy; the bright spot more elongated than natural and somewhat striated; the membrane of a leaden hue and much more concave than natural. E. T. (Eustachian tube)—No air is heard to enter either during the act of swallowing or during a forcible expiration with closed mouth and nose, nor does the patient feel any sensation in the ears, nor is the membrana tympani seen to move during these operations. H. D. (Hearing distance:) contact. Left ear.—The same as the right, except that the membrana tympani is somewhat opaque. The watch is only heard when pressed upon the ear.

The mucous membrane of the fauces is much thicker than natural; it is red and spongy, and each tonsil is somewhat enlarged.

Diagnosis.—Occlusion of the faucial orifice of each Eustachian tube by thickened mucous membrane. The grounds for forming this diagnosis are, first, The history of the case, the constitution of the patient, the peculiarly similar attacks which had occurred to a brother and sister, and especially the sudden attacks of deafness following a cold, and their sudden disappearance after a crack; the latter being caused by the sudden entrance of the air into the tympanic cavity, and the return of the membrana tympani to its natural position.

Secondly.—The concave condition of the membrana tympani, which showed that there was very little air in the tympanic cavity, there not being any history of other disease whereby the concavity could have been produced. The reason for assuming that the obstruction was at the faucial and not at the tympanic orifice, was the fact that the membrana tympani was translucent in one ear, and only slightly opaque in the other; whereas an amount of inflammation sufficient to cause obstruction at the tympanic orifice of the tube, would necessarily be attended by considerable thickening of the mucous membrane lining the inner surface of the membrana tympani, thereby producing great opacity.

Third.—The condition of the mucous membrane of the fauces, and the result of the exploration of the tube by means of the otoscope.

Treatment.—The object is to reduce the mucous membrane covering the orifices of the tubes to a natural condition, so that their muscles may be enabled to open them. For this purpose the solid nitrate of silver was applied to the mucous membrane of the fauces twice a-week, and an astringent gargle was also used; small doses of blue pill and colocynth were administered each night. The surface of the body was directed to be rubbed daily with a towel dipped in cold water, and abundant exercise on foot was recommended.

The result of this treatment was to produce some slight improvement in the course of the first week; in the course of the second week a crack took place in the right ear, which was followed by a perfect restoration of the hearing in that organ; the air was then heard to enter, upon slightly forcing it, but it did not yet enter during the act of deglutition. In the course of a day or two the left ear also improved greatly, though not equally with the right. This may be accounted for by the thickened state of the mucous membrane of the tympanum on that side.

Now I think that the case just cited (and those who have attended my practice in the hospital will agree with me) is illustrative of a large proportion of the cases we meet with in the practice of Aural Surgery. I mean that in most cases, by a careful attention to the history, aided by an efficient examination of the organ, a medical man can form a tolerably accurate diagnosis. It has often been asked, how is it possible to diagnose between anchylosis of the stapes and nervous deafness, two cases in which, perhaps, no disease of the organ is apparent. But the history of the origin and progress of the cases, the nature of the patient's constitution, and the symptoms of the cases, are quite sufficient to decide any difficulty on the subject. Indeed, so much is capable of being learned from the history of a case, that very often a pretty accurate diagnosis may be formed without any ocular inspection. For instance, in the case above cited, I had made up my mind as to its nature before making any examination. Again, the condition of the Eustachian tube, is to be determined by the state of the membrana tympani. When this tube is obstructed the air that was contained in the tympanic cavity disappears, in part, in the course of a few hours, either from absorption or exosmosis; the effect of this partial disappearance of the air from the tympanic cavity, is that the membrana tympani is drawn inwards, and becomes very concave externally; and although this peculiar condition of the membrana tympani is met with in other diseases of the ear, their history differs from that of simple obstruction of the Eustachian tube.

While citing the above case, I have been desirous of impressing upon you the fact, that by a careful attention to the history of a case, and by minutely examining the ear, and mastering all the symptoms, you have as great a facility in forming an accurate diagnosis in cases of disease of the ear, as in those of any other organ.

I will conclude these introductory observations by giving some directions as to the best mode of dissecting the petrous bone for the purpose of pathological investigation. The simplest method of removing the ears for the sake of dissection, is, in the first place, to saw off the calvaria in the usual way, and then to take out both the petrous bones together, by means of two transverse vertical sections, one in front of each petrous bone and the other posterior to it. The anterior of these sections should pass in a line a little anterior to the anterior clinoid processes, and the posterior in a line through the posterior third of each mastoid process. By means of these two sections the trumpet-shaped extremity of each Eustachian tube, a portion of the mucous membrane of the fauces, and the whole of each petrous bone, together with the mastoid process, can be taken out. The disadvantage of this proceedure is the disfigurement which is apt to ensue from the falling in of the face. To avoid this disadvantage another mode of removing the ears may be resorted to; this consists in taking out each petrous bone separately in the following manner:—The calvaria having been sawn off, an anterior section is to be made on each side on the same line as in the above plan, but extending only as far as the outer part of the body of the sphenoid bone; a posterior section on each side is then to be made, as in the first plan, but not extending further inwards than the basilar process of the occipital bone. These two sections are to be made with a saw, or with a chisel and hammer; the apex of each petrous bone is then to be separated from the sphenoid and occipital bones, and each petrous bone, the outer ear and integument being detached and reflected downwards, is to be drawn outwards, taking care, by inserting the scalpel deeply, to remove as much of the soft parts as possible. With this second plan there is a difficulty in removing the whole of the guttural portion of the Eustachian tube; with care, however, this portion may be removed, especially if the final sections separating the petrous bone from the occipital and sphenoid be made to pass obliquely from above, downwards and inwards. The organ of hearing having been removed, the dissection may be conducted in the following manner:—The auditory nerve in the meatus should be first carefully examined, premising that a previous inspection has been made of the portion of the brain to which the portio-mollis and portio-dura nerves are attached. The size of the external meatus having been ascertained by allowing a strong light to fall into it, its anterior wall is to be removed by the cutting forceps, made by Messrs. Ash, of Broad-street, Golden-square; the state of the epidermis, the ceruminous glands, and secretion, the dermis, periosteum, and bone, are to be noticed. The outer surface of the membrana tympani is then to be examined; also the state of its epidermoid and dermoid laminæ, its degree of tension, and the amount of motion possessed by the malleus when pressed upon by a fine point. The next step is to ascer-

tain the condition of the guttural portion of the Eustachian tube, to lay open the cartilaginous tube with the scissors, and then to expose the cavity of the osseous portion by means of the cutting forceps. In doing this, the tensor tympani muscle is exposed; its structure should be examined, and, if it has not a healthy appearance, portions of it should be submitted to microscopic inspection. The upper wall of the tympanum is next to be cut away, by means of the cutting forceps; in doing this, great care must be taken not to disturb or disconnect the malleus and incus, which lie immediately beneath it. After the tympanic cavity has been exposed, the first step is to draw the tensor tympani muscle, and to ascertain how far it causes a movement of the membrana tympani and ossicles. The incus and stapes are now to be touched with a fine point, so as to ascertain their degree of mobility; the tendon of the stapedius muscle is also to be pressed upon. The condition of the mucous membrane of the tympanum, and of the mastoid cells, is then to be ascertained, and any peculiarity of the cavity, the existence of bands of adhesion, etc., to be noted. The most delicate part of the dissection, viz., that of the internal ear, must now be undertaken. The cavities of the vestibule and cochlea are to be exposed, by removing a small portion of the upper wall of each. Before reaching the vestibule, the superior semi-circular canal will be cut through and removed; the membranous canal should be drawn out and inspected. As the cavities of the vestibule and cochlea are laid bare, it is desirable to see that the quantity of perilymph is natural, as well as its colour and consistence. The outer surface of the membranous labyrinth having been observed, it should be opened so as to expose the endolymph and otoconia, portions of all which parts should be removed for microscopic inspection. This having been effected, the remaining membranous semicircular canals are to be exposed, and the connexion of the base of the stapes to the fenestra ovalis carefully examined. The last stage of the dissection consists in removing parts of the lamina spiralis, in examining them microscopically, and in exposing from within, by following the course of the scala tympani the membrane of the fenestra rotunda. The only organ which now remains unexamined, is the stapedius muscle; in order to expose it, the course of the aquæductus Fallopii, beginning at the stylo-mastoid foramen, should be followed until the base of the pyramidal eminence, containing the muscle, is reached.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

CASE OF POPLITEAL ANEURISM SUCCESSFULLY TREATED BY COMPRESSION.

By J. STEWART GRAVES, Second Class Staff-Surgeon.

Private John Walden, of the 16th Lancers, was admitted into the Garrison Hospital, Cork, on the 10th January, with a pulsating tumour in the ham of the leg. His age 37 years; height about 5 feet 11 inches; formation slender, of good proportions, and muscular. The thigh was rather long and flat, and, in every respect, favourable for controlling the circulation of the femoral artery. He was of phlegmatic temperament, and his habits of life had been tolerably regular.

In the early part of the summer of 1855 he had been much employed in the arduous duties of rough-riding, calling forth the exertion of the muscles of the thigh and calf of the leg; but he appears to have experienced no uneasiness until late in the month of June, when, after running quickly across the Barrack Yard, he felt a sudden pain at the ham, as if he had received a blow. Shortly after this his attention was called to the swelling in the popliteal space; but he continued to perform his ordinary duties for two months longer. Gradual increase, however, of the swelling, together with general uneasiness of the limb, caused him to make known the circumstance, when the nature of his complaint became apparent.

Considering this case, under all circumstances, to be a favourable occasion for the employment of compression, he was accordingly subjected to reduced regimen; the bowels were acted upon; and he was ordered to take digitalis for several days, with an opiate at night. On the 26th January gentle pressure was commenced on the femoral artery, near the centre of the thigh, by means of a simple instrument on the principle of the carpenter's clamp, having a quick screw for regulation of the compression to be employed. Subsequently, two other instruments were supplied, a large and small one, the former of which, only, was found to be of great use in compressing the artery at the groin.

With these means, therefore, the treatment was pursued, giving alternate relief as the pain became urgent from the force applied. The indications of change in the circulation were quickly apparent from the altered state of the surface of the limb, which also became swollen and œdematous; sharp, darting pains occurred in the tumour and through the knee-joint. Much constitutional irritation was now manifested, and it was not without considerable difficulty that he was persuaded to submit to a perseverance in the treatment, the gradually increased pressure causing extreme irksomeness and pain.

The untoward febrile symptoms having been controlled, frictions, with vinegar, were employed, and the limb swathed in flannel, and continued in an easy, semi-flexed position. After three weeks but little pulsation was perceptible in the sac, and it therefore became advisable to lessen the pressure by degrees. The tumefaction subsided, and the surface of the skin assumed a more natural aspect, and nearly all he felt was a tingling sensation about the foot and ankle. As he had become considerably reduced from sleepless nights and spare diet, his nourishment was gradually and carefully increased, by which means there was marked melioration of symptoms, and return to general health. It was gratifying to those who had witnessed this case in its progress to find, on the removal of the compression on the 6th of March, that the pulsation had entirely ceased, and the tumour of the aneurismal sac was much diminished and softened.

Thus is afforded another favourable instance of the decided advantage of this mode of treatment over that of tying the femoral artery.

The subject of this case has been discharged from Hospital, an elastic bandage having been applied; and, as I have had daily opportunities of seeing him, I feel satisfied, as far as one can possibly form a judgment, that the cure is likely to prove permanently successful.

EXPERIMENTAL AND CLINICAL RESEARCHES UPON THE CHANNELS OF TRANSMISSION OF THE SENSITIVE IMPRESSIONS THROUGH THE SPINAL CORD AND MEDULLA OBLONGATA.

By E. BROWN-SÉQUARD, M.D.,

Laureate of the Académie des Sciences, Vice-President of the Société de Biologie, Lecturer on Experimental Physiology, etc.

In this short summary of my researches upon the transmission of sensitive impressions, I shall merely say a few words on the history of the subject.

Before the publication of my researches, the well known doctrine first proposed by Sir Charles Bell, was generally admitted in France. It was not so in Germany, as to the part of this doctrine which relates to the spinal marrow. There the attacks made by Van Deen and by Stilling had greatly shaken the faith of the Medical public in the correctness of Bell's first theory, about the posterior columns of the spinal cord. In England this theory, although contradicted with great talent, by Dr. R. B. Todd, and in opposition to the admirable anatomical researches of Mr. Lockhart Clarke, seemed to be generally admitted.

The general admission of such a theory, when its originator himself had abandoned it, seems strange. Sir Charles Bell says:—"Formerly I believed that the nerves of sensation, that is to say, the posterior roots of the spinal nerves, came from the posterior columns of the spinal marrow, and consequently from the cerebellum. While entertaining this belief, I found my progress barred; for it appeared to me incomprehensible that motion could result from an organ like

the cerebrum and sensation from the cerebellum, for there was no agreement between them. They conformed neither in size, shape, nor subdivisions." (a) In the same paper, Sir Charles Bell tries to show that the lateral columns of the spinal marrow must be the columns for the transmission of sensitive impressions, because they go to the cerebrum, and because the posterior roots are united with them. He does not relate any experiment to prove this new view; and, indeed, as regards his first view, the only experiment he mentions cannot lead to any conclusion. He says:—"I found that injury done to the anterior portion of the spinal marrow, convulsed the animal more certainly than injury to the posterior portion; but I found it difficult to make the experiment without injuring both portions." (b)

In France, Longet has attempted to prove what the eminent British Physiologist had not proved. To establish that the posterior columns of the spinal cord are the only channels for the transmission of sensitive impressions, he relates some experiments and a few clinical facts. In admitting his experiments to be exact, (c) they do not prove anything but that the posterior columns are the only sensitive parts of the spinal cord. But Longet has gone further than this conclusion: from the fact that sensibility only exists in these columns, he draws the quite illegitimate conclusion, that they are the only channels for the transmission of sensitive impressions. As in the medulla oblongata the restiform bodies seemed to Longet to be the only sensitive parts, he admitted, also, that they are the only channels there for sensitive impressions. He was then led, unavoidably, to admit what had barred the progress of Sir Charles Bell, that is, that the sensitive impressions are mostly brought into the cerebellum; and as he thought that the cerebellum is not (as Foville thinks it is) a centre of perception, he was compelled to imagine that the sensitive impressions pass through the cerebellum, and go from it to the tubercula quadrigemina.

I cannot, in this short *exposé* of my researches, show how many contradictions and impossibilities are attached to this system of Longet. I shall refer the reader wishing for more details to the book upon the "Physiology and Pathology of the Spinal Cord," which I am about publishing in Paris.

The clinical facts related by Longet cannot prove the correctness of his theory. In one of the cases, (recorded by an excellent observer, Cruveilhier,) a girl had lost voluntary movements, but not sensibility. The posterior columns were found altered. This fact is quite in opposition to the view of Longet. In four other cases in which the posterior columns were altered, sensibility was lost or diminished. But in these cases the posterior roots of the spinal nerves were also altered; and as these roots are positively the channels for the transmission of sensitive impressions, these cases cannot prove anything as to the function of the posterior columns. As I have already said long ago, (in my Inaugural Dissertation,) (d) the pathological cases fit to prove something about the function of the posterior columns, are those in which these columns are alone altered. I have collected more than twenty such cases, and I shall soon publish them. They positively prove that sensibility may exist more or less complete in cases of considerable alteration of the posterior columns.

It seems that it is very easy to prove, by two simple experiments, such as a transverse section of the posterior columns, or a transverse section of the whole spinal cord, except the posterior columns, that the sensitive impressions pass, or do not pass, along these columns. These two experiments, or, at least, one of them, have been made by Bellingeri, Calmeil, Schœps, Rolando, Fodéra, Backer, Van Deen, Stilling, Kuerschner, Eigenbrodt, and other Physiologists, with the most discordant results, and the reader will understand, by the exposition of the results of my experiments, how easy it was to be mistaken in these researches. For the sake of brevity, I will set forth my results in the form of propositions.

I. *The opening of the spinal canal and the laying bare of the spinal marrow do not diminish either sensibility or the voluntary movements.*—Longet had said that, in adult mammals, the exposure of the spinal marrow to the influence of atmospheric air was always a cause of paralysis, both of the voluntary movements and of sensibility. I have ascertained that, in those cases where there is a paralysis, it does not result either from the loss of the cerebro-spinal fluid, or from a peculiar influence of the atmospheric air, but from the loss of blood or the exhaustion of the animal by excess of pain. I have seen paralysis produced before the cerebro-spinal fluid had been lost, and even before the opening of the spinal canal, in cases where an unaccustomed operator tried to lay bare the spinal cord; and, on the contrary, I have almost every day opportunities of ascertaining that the loss of the cerebro-spinal fluid, and the laying bare of the spinal marrow, do not seem to diminish at all either sensibility or the voluntary movements.

In a few cases, where the spinal cord has been laid bare in man, no ill effect has been observed. No one will think of finding an objection to this assertion, from the well-known frequent bad results of tapping, in cases of spina-bifida, because then the circumstances are very different from what they are when the envelopes of the spinal marrow and this organ itself are healthy.

II. *A transverse section of the posterior columns of the spinal cord, instead of destroying or diminishing sensibility, is followed by a notable increase of sensibility of almost all the parts of the body which are behind the section.*—Many experimenters had found, after a transverse section of the posterior columns, that sensibility is hardly diminished in the parts of the body which receive their nerves from the portion of the spinal cord which is behind the section. I have found that, not only is there no loss or diminution of sensibility, but that there is an evident increase of it (e). In certain animals, and especially in rabbits and sheep, it is very easy to ascertain that there is a very great increase in sensibility in almost all the parts behind the section. Before the operation in rabbits, the most energetic pinching of the skin produces agitation, but no shrieking; after the operation, on the contrary, the least pinching produces shrieking and a greater agitation. Sometimes the hyperæsthesia is so considerable that the least pressure upon the skin makes the animal shriek. Whether the operation is performed in the lumbar, the dorsal, or the cervical region, the phenomena are always the same; that is, there is a manifest hyperæsthesia in almost all the parts of the body which receive their nerves from the parts of the spinal cord which is behind the section. It has been so in all the species of animals I have operated upon; and I have already made this experiment upon animals belonging to more than twenty species.

As long as the animals live after the section of the posterior columns, hyperæsthesia continues to exist, except in the cases where re-union takes place between the two surfaces of the section; but hyperæsthesia is much greater during the first week after the operation than it is after a month or many months.

There cannot be the least doubt about the accuracy of my statement, that hyperæsthesia follows a complete transverse section of the posterior columns. Two Committees,—one appointed by the Academy of Sciences of Paris, and composed of MM. Flourens, Rayer, Serres, and Cl. Bernard, the other appointed by the *Société de Biologie*, and composed of MM. Bouley, Cl. Bernard, P. Broca, Goubaux, Giraldès, and Vulpian,—have ascertained that I have not been mistaken. At the *Société de Biologie*, the method I employ, to examine whether the section is complete or not, has been employed:—After a careful investigation of the phenomena which follow the operation, the animal is killed, and the spinal cord is put into alcohol. The next day, or at a later period, the hardened spinal cord is examined, and then it is easy to see what section has been made. It is by this method of research that the Committee has been enabled to decide positively that I was right in my assertions.

Laying aside the curious fact of the existence of hyperæsthesia, a fact which is observed also in man, when the posterior columns of the spinal marrow are altered or injured, in a small part of their length,—it results from the experiments consisting in a transverse section of these columns, that the transmission of sensitive impressions to the encephalon does not take place only along the posterior columns.

III. *All the parts of the encephalon which are situated in the*

(a) The Nervous System of the Human Body, p. 238. 3rd Ed. 1844.
(b) Loco cit. p. 443.
(c) I have shown elsewhere that these experiments give very obscure and complicated results on account of the impossibility of limiting the action of a galvanic current to either the posterior, the lateral, or the anterior columns, or to the grey matter.
(d) Recherches et Expér. sur la Physiol. de la Moelle épinière. Paris, 2 Janvier, 1846, p. 28.

(e) For the means of ascertaining what is the degree of pain in animals I will refer to my book.

posterior or superior side of this nervous centre resemble the posterior columns of the spinal marrow in this respect—that a state of hyperæsthesia always follows a transverse section upon any of them.—If a complete transverse section is made upon any part of the restiform bodies, sensibility becomes very much increased in every part of the limbs and trunk.

Hyperæsthesia is also, but at a less degree, one of the results of a transversal incision in the cerebellum, in the processus cerebelli ad testes, and in the tubercula quadrigemina.

If we carefully dissect the two restiform bodies so as to separate them from the neighbouring parts, and if we divide them transversely at their two extremities, and then remove them, we find that the animal, instead of losing its sensibility in the different parts of the limbs and trunk, becomes hyperæsthetic.

It results from these experiments, that the restiform bodies which are the direct continuations of the posterior columns of the spinal cord are not the only channels for the transmission of sensitive impressions to the sensorium.

IV.—*After a complete transverse section of the whole spinal cord, except the posterior columns, the transmission of sensitive impressions from almost all the parts behind the section does not take place.*—This experiment, performed by Stilling almost exclusively upon frogs, led him to affirm that sensibility is then entirely lost in all the parts behind the section. Much more recently, Schiff, repeating this experiment, affirmed, on the contrary, that sensibility is not lost in any part behind the section. Messrs. Vulpian and Philipeaux, who have made this experiment, some time after Schiff, positively declare that sensibility is then completely and definitively lost. In the presence of almost all the physiologists of Paris, and particularly of the members of the committees appointed by the Academy of Sciences and by the Biological Society, I have performed this experiment, and shown that different results may be obtained according to various circumstances. At first, if the least quantity of the central grey matter of the spinal cord is left undivided, sensibility persists (although much diminished) almost everywhere behind the section. Besides, there are parts in the neighbourhood of the section and behind it which always remain sensitive. I will explain afterwards what is the cause of this partial persistence of sensibility. Whatever is this cause, if we perform the following experiment we may obtain the most decisive result:—The spinal cord having been laid bare, in a large mammal, in the dorsal region, I divide transversely the whole of it, except only the two posterior columns, and, after ten or fifteen minutes or a little more, I find that all the usual means of exciting pain are applied in vain to the posterior limbs, so that these parts seem to be entirely deprived of sensibility. It results from this fact, and from many others in which the section has been made nearer to the medulla oblongata, that the idea that the sensitive impressions go up to the encephalon along the posterior columns, is entirely erroneous.

V. *A longitudinal section on the lumbar enlargement of the spinal cord, separating it in two lateral halves, although it does not injure the posterior columns, destroys sensibility in the two posterior limbs.*—Let us imagine what should take place if either of the alternative theories of Sir Charles Bell were true, in the case of such a longitudinal separation of the two lateral halves of the spinal cord. Sensibility should remain, perhaps a little diminished on account of the disturbance in the circulation of these two halves. Instead of that I find that sensibility is entirely and definitively lost in the two posterior limbs. The voluntary movements, on the contrary, remain in these limbs, but partly diminished in consequence of the diminution of the local circulation and of the section of the muscles of the whole lumbar region. Here the lateral columns remain entire, and the posterior columns almost entire, and, nevertheless, sensibility is lost. It results from this fact, that these columns are not the aggregation of the sensitive fibres of the posterior roots, going up to the encephalon.

VI. *A transverse section of the two posterior, the two lateral, and the two anterior columns of the spinal cord, does not prevent the transmission of sensitive impressions taking place.*—If at different places, and, for instance, at the level of the tenth dorsal vertebra, we divide transversely the two posterior columns, and, at the level of the last dorsal vertebra, the two anterior, and, besides, at the level of the third lumbar vertebra the two lateral, we find that the posterior limbs remain sensitive.(f) Usually, then, there is a diminution of sensibility, which seems to be the consequence of an unavoidable injury to the grey matter. It results from this experiment, that the grey matter of the spinal cord is an organ of transmission of the sensitive impressions.

VII. *The grey matter of the spinal cord seems to be deprived of sensibility, but this cannot be an objection to our admitting that it is a conductor of sensitive impressions.*—Magendie found long ago, that the grey matter of the spinal cord seems not to be sensitive, at least to mechanical excitations. Longet says, that galvanism may be applied to this part of the cord without causing pain. I confess that I consider it absolutely impossible to apply a galvanic current to the grey matter of the cord without exciting the white columns of this organ, and I have always seen symptoms of pain in making this experiment, when I had not first removed the posterior columns. But after this removal, I have, in a number of experiments, ascertained that the grey matter seems to be quite deprived of sensibility.

The apparent insensibility of the grey matter, upon which Longet laid so much stress to establish that this matter is not a conductor of sensitive impressions, is not a fact in opposition with the view first proposed by Bellingeri, that it transmits sensitive impressions. The property of transmission of nervous action has long been known to belong to parts, such as the cerebrum, the cerebellum, etc., which are unable to be excited so as either to give pain or to produce movements. I showed, three years ago, (g) that in different parts of their length the same nerves may have quite a different degree of sensibility, although they seem to have the same power of transmission in these different parts. I found last year a very decisive fact to prove, that the power of transmission may exist in a part which seems to be deprived of sensibility. It is known, that the trigeminal nerves, after their entrance into the pons varolii, descend into the medulla oblongata, and go beneath the restiform bodies towards the nib of the calamus. I have ascertained, that if a large pin is introduced through the medulla oblongata, so as to traverse alternately the restiform body, the trigeminal nerve, and the anterior pyramid, there is no symptom of pain. This shows clearly, that the fibres of the trigeminal nerve, although they are organs of transmission, have no sensibility to mechanical excitation in the medulla oblongata.

But it is not necessary to discuss this question any longer, as the experiments in which the grey matter of the spinal cord is left alone to establish a communication between the sensorium and certain parts of the body, leave no room for doubt.

VIII. *After a transverse section of the central part and of the posterior horns of the grey matter of the spinal cord, the transmission of sensitive impressions, from almost all the parts of the body behind the section, does not take place.*—This is another experiment proving that the grey matter is a conductor of the sensitive impressions.

In summing up all the facts above related, we see that the posterior columns of the spinal cord are not the aggregation of all the sensitive nerve-fibres coming from the posterior roots and going up to the encephalon. We see, also, that the transmission of the sensitive impressions to the encephalon seems to be performed by the grey matter of the spinal cord. We shall now proceed to show what is the course of the sensitive nerve-fibres in the spinal cord.

(To be continued.)

(f) In the mammals usually employed for these experiments, the spinal cord begins to give nerves going to the inferior limbs only at the level of the fifth lumbar vertebra.

(g) See my book, "Experimental Researches applied to Physiology and Pathology," p. 98. 1853.

ON THE CLOSURE OF ARTERIES AT THEIR ORIGIN, AND ON SOME MORBID CHANGES OF THE HEART.

By THOMAS HODGKIN, M.D.

[Read before the Harveian Society, March 6, 1856.]

At the kind invitation of my friend, Dr. Ridge, I am again induced to occupy the attention of my fellow-members of the Harveian Society, and on the present occasion I am indebted

to him for the suggestion of the subject on which I am about to speak. In the Hunterian Oration which Dr. Ridge lately delivered, he has given a most valuable and elaborate analysis of the record of the symptoms, death, and post-mortem examination of the great anatomist in whose honour the oration was pronounced. Angina pectoris, and the pathological changes upon which it depends, form, of course, a prominent part of this interesting discourse. Nevertheless, Dr. Ridge felt himself so restricted by the time reasonably to be occupied in the delivery, that he was precluded from stating much which was present in his mind to offer. Among the points thus omitted was the modus operandi of the closure of the coronary arteries. Knowing this was a subject to which I some years since paid distinct attention, he proposed it to me as one on which I might write a short article to be laid before you. I do so with the more pleasure, because it recalls to my recollection two important communications made to this Society at a time when I was a more frequent attendant of your meetings than I have lately had the advantage of being. I allude to the cases presented by Dr. Ridge himself of obliteration of the coronary arteries, and to the experiments of another distinguished member, John Erichsen, in which the coronary arteries were tied, at the suggestion of Professor Sharpey, in both of which papers the importance of these arteries to the performance of the heart's functions was clearly shown. In the cases related by Dr. Ridge, in particular, I noticed at the time, as, I believe, he had also done himself, the operation of a principle which I had taught when I was in the practice of delivering lectures on Morbid Anatomy at Guy's Hospital. My attention to this point in the pathology of arteries was at first excited on the occasion of the late Charles Aston Key operating on a patient affected with aneurism of the arteria innominata. He applied the ligature to the right carotid, and the patient rather suddenly expired a few hours after. On examination, the left carotid, though apparently healthy and of normal size, was found to communicate with the arch of the aorta, by an aperture scarcely large enough to admit the passage of a small ordinary probe.

This conformation of the artery, which very satisfactorily accounted for the patient's death, by the deficient supply of blood which it caused the brain to receive, appeared at the time to be regarded merely as an untoward accidental coincidence. In reflecting upon it, however, I quickly perceived that it was only the natural consequence of a pathological principle of very general application, and on which I had laid particular stress when treating of the serous membranes, which on many accounts afford the best field for the study of morbid processes in their simplest, as well as their most evident forms. The principle to which I refer is the contraction of the more or less plastic deposit resulting from inflammation. The deposit beneath the lining membrane of an artery forms no exception to this rule, but the contraction is probably the more marked in proportion as the deposit possesses the plastic character. It is extremely probable that the aneurismatic dilation takes place most readily at the very time at which the inflammatory process is producing the deposit, the artery then being in a more than ordinarily yielding state. The branches given from the dilated vessel do not necessarily increase with the trunk from which they proceed, although this is sometimes the case, for which exemption an explanation may be given, which I shall presently offer. When the dilation of the trunk has acquired a considerable size, we might expect to find the branch having a funnel-shaped mouth, which, however, I do not remember ever to have seen, unless the branch also has been diseased.

Let us now consider what must be the effect produced upon the mouth of the branch when the adventitious deposit has arrived at that stage at which its contraction takes place. We know that this contractile force is very great, insomuch that muscular effort is incapable of resisting it, as in the case of false membranes on the pleura costalis and diaphragm, and in the contraction of the cicatrices of burns. In the case of a dilated diseased artery, the force of the heart in propelling the blood may for a time resist this contraction, but it must ultimately fail, and the contraction take place, more especially if the natural decline of the patient's strength, or the course of treatment employed, should have the effect of diminishing the force of the heart and the volume of the blood.

Now if, by this contraction, an area of an inch in diameter around the mouth of an arterial branch be reduced by only one third, it must have the effect of greatly diminishing or closing the mouth of the branch. When this idea had struck me, from seeing the specimen taken from C. A. Key's patient, I sought its confirmation in other analogous specimens, and found that my views were completely corroborated.

It must not be supposed that the process which I have described invariably takes place. As I have already observed, the branches may partake of the disease of the trunk, and, like it, become dilated and somewhat funnel-shaped, in which case they may participate in the contraction, also, without being obliterated. I have said that the integrity of the branches, originating from a diseased trunk, has its analogy in the phenomena presented by the serous membranes. I allude to the abrupt and defined termination of inflammation in these membranes which is sometimes seen where a sudden change of direction takes place, as, for example, in the pleura pulmonalis, in which it often ceases where the pleura passes from the external surface into an interlobular fissure; and, also, in many instances in which the peritonæum changes its direction.

Even where the branch may not participate in the disease of the trunk, its closure, or contraction, may be prevented by a further stage into which the adventitious deposit may pass. Neither the atheromatous, nor the bony deposit so commonly met with beneath the lining membrane in diseased arteries, is likely to undergo the process of contraction. It is, however, to this latter stage to which I more particularly allude, as the comparatively salutary barrier by which nature obviates the inconveniences which must follow the obliteration of arterial branches at their mouths; and I have in my mind's eye preparations in which this provision for the preservation of the circulation is strikingly exhibited in the human subject, and also in the horse, in which an aortic aneurism has become completely ossified, forming a permanent cavity of bone, with patent orifices for its branches. Although, by this provision, the closure of the branches given off from a diseased trunk may be prevented from taking place through the contraction of the deposit situated beneath the lining membrane, it is quite possible for the obstruction to blood entering the branch to be brought about by another morbid process taking its rise at this stage of the derangement.

The lining membrane may give way, and expose the osseous, or rather earthy matter, to immediate contact with the blood, which then begins to deposit phosphate of lime or other earthy salts upon the earthy surface so exposed. Such depositions assume the form of irregular earthy excrescences, having somewhat of a minute cauliflower appearance. I have no doubt that a comparatively small artery might be so closed, since I have seen the aorta itself all but closed in two places by earthy growths of this character, apparently deposited in the first instance upon the exposed bony surfaces of a deposit formed beneath the lining membrane; and I cannot doubt that productions of precisely the same character, within the semilunar valves, must have been competent to prevent the blood from entering the coronary arteries; though, I confess, I was not sufficiently alive to the importance of this inquiry when such cases came under my examination. This production of earthy concretions formed directly from the blood offers a striking contrast with the collection of matter of similar composition which we find taking place in the interior of veins, and constituting those bodies which we call phlebolites. In the one case the earthy salts are separated directly from the blood by a sort of crystallization, while in the other they are instances of the much more ordinary process by which, in accordance with what appears the prevalence of an organic law, the earthy salts are separated beneath an investing membrane by means of endosmosis. This law seems to be essentially called into operation in the normal production of bone, in the ossification of callus after fracture, in the ossification of the pulps of the teeth, and in other cases, both physiological and pathological. The atheromatous deposit beneath the lining membrane of arteries, though apparently insusceptible of contraction, may effect the obstruction, or even the obliteration, of the branches of arteries simply by its accumulation. This appears to have been the case in the example reported by Dr. Gull in the first volume of the third series of Guy's Hospital Reports; it is also met with in the arteries of the brain, where it is not an unfrequent cause of cerebral apoplexy.

The causes which I have hitherto mentioned are of a more or less chronic character; and I must not omit to notice one to be considered as acute, and which it would probably have

been more in order to have described in the first instance, since it is very likely that it exists as an early stage of the contracted, the atheromatous, and the bony deposits; I mean that form of arteritis in which the lining membrane is raised by a more or less coloured, semi-transparent effusion. This condition, which is met with about the valves of the heart in rheumatic and other forms of endocarditis, is not unfrequently associated with the adhesion of small portions of fibrin separated from the blood and adherent to the unattached surface. It is not always easy to account for its existence in the aorta and other arteries, yet it is sometimes evidently produced by local causes, as, for example, where an elongated semilunar valve or an adventitious structure attached to it has obviously acted as a mechanical irritant, or where a valve has been ruptured from some extraordinary effort, or when inflammation has occurred as an extension of endocarditis.

A good example of this form of arteritis is described and figured in a paper by Dr. Corrigan, in the *Dublin Medical Journal*. It is obvious that this affection, when occurring about the orifice of an arterial branch, must greatly contract or altogether close it. Although the foregoing observations may possess some interest in themselves, as exhibiting the stages and results of some pathological processes, they would scarcely warrant my occupying your time to listen to them, were they not susceptible of being connected with some practical considerations. When we reflect that endocarditis is by no means a very rare affection, and that, either as an extension of endocarditis, or as a primary affection, the first part of the aorta is frequently a subject of disease, we may reasonably suppose, that the coronary arteries are more exposed to the closure of their orifices than, perhaps, any other artery in the body; and yet it is extremely probable that this affection has been very generally overlooked. I suspect that I may have frequently made this omission myself; for I do not remember that I ever even sought for this important organic lesion before I heard the detail of Dr. Ridge's cases; and since that time my opportunities have been comparatively rare. I cannot pretend to offer an opinion whether it may be one office of the foramina Thebesii to provide against these obstructions, by supplying the muscular structure of the heart with blood from another channel. I had intended to have made this question a subject of inquiry before meeting you this evening, but I have been prevented from doing so. The continuance of life is so essentially connected with the incessant performance of the heart's function, that we might naturally be led to suppose that its muscular structure would be very little liable to disease; and such I believe to be the case to a greater degree than any other texture of the body, possessed of an equal degree of organization and activity of function. It is, nevertheless, like them, liable to atrophy and hypertrophy, to various forms of degeneration, and also to be the seat of strumous and cancerous deposits, and it may also be encroached upon by parasitical animals. I have myself seen the acephalocyst hydatid lodged beneath the close pericardium in the human subject, and numerous cysticerci imbedded in the muscular substance in the heart of a bear. Of all these derangements, the degenerations of the muscular structure are probably the most frequent and the most important; and yet it may safely be said, that they have been the last to receive careful investigation; and to no one are we more indebted for researches connected with this subject than to our fellow-member, Dr. Richard Quain. I think it highly probable that the fatty degeneration of the heart, which Dr. Quain has so successfully studied, is, in a large number of cases, a consequence of the diminished supply of blood furnished to the heart, occasioned by the contraction or closure of the origins of the coronary arteries, resulting from disease of the aorta, in one or other of the modes which I have been describing this evening.

Among the records of some hundreds of inspections made many years since, and, of course, before the degenerations in question had been recognized, I have described various appearances in the muscular structure which I now confidently believe to have been produced by different stages of these degenerations. They consisted of different shades of colour, for the most part paler and browner than the healthy heart—differences of texture—as, for example, close and cheesy, or waxy, or more or less soft and lacerable, or, on the contrary, more or less firm and resistent. As they were not made the subject of either the microscopical or the chemical examination which I am now sensible they should have received, they merit no more than a passing notice of the fact; yet, at the same time, I may mention that these appearances repeatedly arrested my attention, in consequence of their having concurred with breast pang, or disturbance of the heart's action, without valvular disease or ossification of the coronary arteries, to account for the symptoms. The perceptible alterations of structure likewise claimed my attention, from their situation. They were, for the most part, neither common to the whole substance of the heart, nor irregularly interspersed through it; but, if my recollection does not mislead me, were chiefly situated in the substance of the ventricles, about equally distant from their internal and external surfaces, a fact which might, possibly, be explained if we were better acquainted with the course taken by the muscular fibres of the heart, and with the distinct sets to which they might be reduced.

This subject was long since studied by Lower, and when I was a Student in Edinburgh, the late Dr. Duncan, jun., took it up with great assiduity for a time. It may, I believe, be safely said, that this subject generally receives less attention than it merits.

(To be continued.)

THE PROVINCIAL
PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE HALF-YEAR ENDING DECEMBER, 1855.

(Continued from page 390.)

The subjoined Report comprises the following Hospitals:—Addenbrooke's (Cambridge), the Bradford Infirmary, the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General, the South Staffordshire (Wolverhampton), the Staffordshire General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn), and the York County Hospital.

LIGATURE OF ARTERIES.

Case 4 *of former Report.*—In this case ligature of the femoral artery had been performed on account of a popliteal aneurism. The ligature came away in the fifth week. The patient, a man, aged 34, at first seemed to do well; but ultimately symptoms of pyæmia developed themselves. Death occurred nine weeks after the operation. At the autopsy a collection of fetid pus was found about the sac of the aneurism, and the adjacent bone was in a carious condition. The femoral and iliac veins of the same side contained pus, which had even extended into the vena cava itself. In the iliac fossa was another large purulent depôt.

Case 1.—A man, aged 59, under the care of Mr. Blaker, in the Brighton Hospital, on account of aneurism of the first part of the axillary artery. Ligature of the subclavian was practised. All went on well until the ninth day, when profuse hæmorrhage took place. The bleeding recurred several times, and death followed on the twelfth day. (For details, see *Medical Times and Gazette*, for Jan. 19, page 63.)

Cases 2, 3, 4, and 5.—In these cases the radial, the ulnar, the brachial, and one of the intercostal arteries were severally ligatured on account of wounds. In all the result was in every way satisfactory.

TREATMENT OF ANEURISM BY COMPRESSION.

Case 1.—A robust man, aged 34, under the care of Mr. Teale, in the Leeds Infirmary, on account of a popliteal aneurism of considerable size. Compression treatment was pursued; the compressor being entirely disused at night, and, during the day, left a good deal to the patient's own management, it not being attempted to secure complete arrest of pulsation. A cure resulted in sixteen days, the tumour having become solid and pulseless.

HERNIOTOMY.

Number of cases, 18; recovered, 10; died, 8.

Case 1.—A man, aged 60, under the care of Mr. Blaker, in the Brighton Hospital. Hernia inguinal, the size of an orange, strangulated seven hours. The sac was opened, and found to contain congested bowel and omentum, with a large quantity of fluid. Recovered. *Case* 2.—A woman, aged 71, under the care of Mr. Teale in the Leeds Infirmary. Hernia femoral; strangulated one week. Sac not opened. All went on well at first, the wound having healed by the first intention. A week after the operation signs of peritonitis became developed, and continued for several days. She left the Hospital quite well six weeks after the operation. *Case* 3.—A woman, aged 51, under the care of Mr. Tapp, in the Dorset Hospital. Hernia femoral, the size of a goose's egg: strangulated forty-eight hours. Reduction without opening the sac was attempted, but failed. The sac contained intestine and adherent omentum. The latter was not reducible, and was allowed to remain. Recovered well. *Case* 4.—A man, aged 51, under the care of Mr. Smith, in the Leeds Infirmary. Hernia congenital; strangulated eight days; sac opened. Symptoms of peritonitis were present during the three days following the operation, but, subsequently, the recovery was rapid. *Case* 5.—A woman, aged 72, under the care of Mr. Wilton, in the Gloucester Infirmary. Hernia femoral; strangulated three days; constitutional symptoms only slight. The sac was opened, and a knuckle of intestine exposed, which had acquired firm adhesions. The bowels acted four hours after the operation, and a rapid recovery followed. *Case* 6.—A woman, aged 51, under the care of Mr. Hey, in the Leeds Infirmary. Hernia femoral; strangulated three days; sac not opened. Peritonitis was present at the time of the operation, and increased to a severe degree during the two following days, after which it subsided gradually, and a good recovery ensued. *Case* 7.—A woman, aged 80, under the care of Dr. Nimmo, in the Dundee Royal Infirmary. Hernia femoral, the size of a small orange; strangulated forty-eight hours. The sac was opened, and found to contain a knuckle of bowel, and some adherent omentum. The omentum was cut away. Recovery without a bad symptom. *Case* 8.—A man, aged 54, under the care of Mr. Hey, in the York County Hospital. Hernia scrotal; strangulated seven days; sac opened. Great tympanitis existed at the time of the operation, and continued afterwards. The bowels did not act for several days. Assafœtida injections and galvanism were employed, to excite the suspended peristaltic action of the bowels. Recovered. *Case* 9.—A woman, aged 60, under the care of Mr. Churton, in the Liverpool Southern and Toxteth Hospital. Hernia femoral, strangulated twenty-one hours; sac opened. Opium treatment after the operation. Recovered without a bad symptom. *Case* 10.—A man, aged 42, under Mr. Halton's care, in the Liverpool Royal Infirmary. Hernia inguinal; strangulated one day; sac opened. Recovered. *Case* 11.—A man, aged 80, under the care of Mr. Curme, in the Dorset Hospital. Hernia inguinal, strangulated fifty-three hours; sac opened. There had been no sickness whatever, and the tumour, which was the size of an egg, was scarcely tender. He was in the Hospital two days before the operation was performed, and all the usual expedients for effecting the taxis were tried. The sac having been opened, a knuckle of bowel and some omentum were exposed, both of them in tolerably good condition. In the evening there was tenderness around the wound, for which leeches were applied, and calomel and opium ordered. On the following day the tenderness had passed away, but there was much tympanitis. The tympanitis increased in spite of remedies, and death took place four days after the operation. There had been no return of the tenderness on pressure, and, with one exception, no vomiting whatever had occurred throughout the case. *Case* 12.—A healthy man, aged 70, was admitted into the Kent and Canterbury Hospital, on account of a small, tense, femoral hernia, which had existed only ten hours. Treatment by opium, ice, and the exhibition of chloroform, etc., was tried, but it was of avail. The operation was performed after thirty-four hours' strangulation, the symptoms not having been very urgent. The sac was opened. He did well for several days, requiring, however, the free use of stimulants. Subsequently the wound became sloughy, and gangrene, extending into the inguinal region, followed. The slough at length separated, and the wound cleaned; but, in spite of the free use of stimulants, the patient sank. Death took place five weeks after the operation. A severe rigor took place on each of the two days preceding death. No autopsy. *Case* 13.—A man, aged 23, under the care of Mr. Long, in the Liverpool Royal Infirmary. Hernia inguinal, strangulated twenty-four hours; sac opened. He was an intemperate and cachectic man. Peritonitis followed the operation, and death ensued on the third day. *Case* 14.—A man, aged 32, under the care of Mr. Fearn, in the Derby Hospital. Hernia inguinal, strangulated three days. The sac was opened, and the intestine found in such a state that it was thought not safe to return it. An artificial anus was accordingly made. Death from exhaustion followed on the twelfth day. At the autopsy, the bowel was found adherent to the wound, the latter being in a sloughy state. No extravasation into the peritoneal cavity had occurred. *Case* 15.—A woman, aged 62, under the care of Dr. Masfen, in the Staffordshire General Hospital. Hernia direct inguinal, strangulated one week, the size of an egg. The sac was opened, and the bowel, of a deep chocolate colour, exposed. Vomiting and other symptoms of peritonitis continued up to the time of death, which took place thirty-two hours after the operation. *Case* 16.—A man, aged 37, was admitted, in a perfectly comatose condition, into the Leeds Infirmary, under the care of Mr. Hey. The hernia, which was inguinal, was stated to have existed only two days. The sac was not opened, and the bowel was easily returned. The coma continued, and death took place next morning. No autopsy. *Case* 17.—A man, aged 27, under care in the Kent and Canterbury Hospital. Hernia scrotal, strangulated two days. The sac was opened, and its contents, consisting of intestine and omentum, wholly reduced. The bowels acted twice in the twelve hours following the operation, but the sickness continued. Excepting some tenderness in the right side, the signs of peritonitis were ill-marked. Death took place fifty hours after the operation. *Case* 18.—A woman, aged 55, under care in the Kent and Canterbury Hospital. Hernia femoral, strangulated three days and a-half. The taxis had been much abused before admission, and the skin was much discoloured. The operation was performed immediately. The sac having been opened, the bowel was found to have already given way, and some fetid, sanguineous fluid escaped from the peritonæum. Death took place eight hours after the operation. At the autopsy, the strictured portion of bowel was found to have sloughed away, leaving the two extremities of the gut open.

REMOVAL OF NECROSED BONE.

The returns made to us include seventeen cases in which operations have been performed for the removal of necrosed sequestra from the shafts of the long bones. In all the patients are reported to be either convalescent or doing well. In nine cases the tibia was the affected bone, in three the femur, in two the humerus, in one the fibula, in one the radius, and in one the clavicle.

AMPUTATIONS.

	Total.	Recovered.	Under Treatment.	Died.	Percentage of Deaths.
Double Amputation	3	3	0	0	..
Of the Thigh	33	18	2	13	39·3
Of the Leg	24	17	0	7	29·1
Of the Foot	13	11	1	1	7·6
Of the Upper Extremity	32	23	0	9	28·1
Total of all cases	105	72	3	30	28·5

Double amputations.—*Case* 1.—A lad aged 19, was admitted into the Cumberland Infirmary, under the care of Dr. Page, having had both legs crushed in a railway accident. Primary amputation of both was performed. The left was removed in the upper third of the leg, and the right at the knee-joint. In the latter the flap was obtained from the calf. Much constitutional disturbance followed the operation, but it was subdued by anodynes and stimulants, and he made an excellent recovery. The injury which had been inflicted on the right limb, was such that amputation through the thigh would have been performed, had it not been wished to save stumps of equal length. Under these circumstances the knee-joint operation was performed; and, as the case proved, with very good result. *Case* 2.—A man aged 32, in good health, under

the care of Mr. Waddell, in the Staffordshire General Hospital. Both legs had been crushed in a railway accident. Primary amputation of both below the knee was performed. Recovery, without a bad symptom. *Case* 3.—A man aged 29, was admitted into the Gloucester Infirmary, under the care of Mr. Charleton, on account of both hands having been cut through by a chaff-cutting machine. The right was removed through the middle of the metacarpal bones, and the left at their articulation with the carpus. Diffuse suppuration in both forearms followed. Recovery.

Of the Thigh.—Case 4.—A girl, aged 13, under Mr. Furner's care, in the Brighton Hospital, on account of diseased knee-joint. Amputation. Recovery. *Case* 5.—A woman, aged 24, under Mr. Lowdell's care, in the Brighton Hospital, on account of diseased knee-joint. Amputation through the thigh. Recovery. *Case* 6.—A boy, aged 13, under Mr. Huntingdon's care, in the Hull Infirmary, on account of necrosis of the tibia. Amputation. Recovery. *Case* 7.—A delicate boy, aged 9, under the care of Mr. Minshull, in the Liverpool Southern and Toxteth Hospital, on account of a compound and comminuted fracture of the right leg. Primary amputation in the lower third of the thigh. Recovery. *Case* 8.—A girl, aged 13, under care in Addenbrooke's Hospital, on account of necrosis of the shaft of the tibia. So much constitutional disturbance was present, that amputation was deemed necessary. It was performed above the knee, and a good recovery followed. *Case* 9.—A girl, aged 20, scrofulous looking, under care in Addenbrooke's Hospital, on account of chronic disease of the knee. Her health was much impaired. Amputation. The stump healed by first intention, and her health considerably improved. Symptoms of phthisis subsequently developed themselves, and death occurred about three months after the amputation. *Case* 10.—A man, aged 24, under Mr. Wright's care, in the Cheltenham General Hospital, on account of diseased knee-joint. The disease was of long-standing, but had become acute in consequence of an injury six months before. Amputation. Recovery. *Case* 11.—An adult male, of sound constitution, under Mr. Jackson's care, in the Sheffield General Infirmary, on account of a compound fracture of the leg, Secondary amputation was performed about six weeks after the injury. Under treatment. *Case* 12.—A woman, aged 21, under the care of Mr. Nimmo, in the Dundee Royal Infirmary, having for three years suffered from strumous disease of the right knee. The knee was imperfectly anchylosed, but disease of the tibia and ankle-joint of the same limb necessitated amputation, which was performed through the lower third of the thigh. Under treatment. *Case* 13.—A man, aged 36, under the care of Mr. Charlton, in the Liverpool Southern and Toxteth Hospital, on account of compound fracture of the right thigh, implicating the knee-joint. Very profuse hæmorrhage had occurred. Primary amputation. Recovery. *Case* 14.—A delicate girl, aged 6, under care in Addenbrooke's Hospital, on account of diseased knee-joint. Amputation. Obstinate diarrhœa followed, but was at length checked. Recovery. *Case* 15.—A healthy man, aged 27, under the care of Mr. Hey, in the Leeds Infirmary, on account of diseased knee-joint. Amputation through the condyles of the femur. Recovery, with a good stump. The larger flap was cut from the front. *Case* 16.—A woman, aged 23, under the care of Mr. Page, in the Cumberland Infirmary. Excision of the knee-joint had been performed by another Surgeon, six months prior to her admission. Caries of both bones still existed, and she was so worn down by profuse and long-continued suppuration that it seemed doubtful whether she could bear an amputation. Some improvement was, however, obtained by the use of stimulants, etc., and about a month after admission the limb was removed. Recovered well. *Case* 17.—A strumous woman, aged 24, under the care of Mr. Stubbs, in the Liverpool Royal Infirmary, on account of diseased knee-joint. Amputation. Recovery. *Case* 18.—A woman, aged 60, under the care of Mr. Stubbs, on account of acute ulceration of the knee-joint. She was fast sinking at the time of the operation. Recovered well. *Case* 19.—A girl, aged 19, under the care of Mr. Halton, in the Liverpool Royal Infirmary, on account of soft cancer of the lower part of the femur. About a fortnight after the amputation, a fungous growth began to spring from the end of the bone. After a week's rapid growth it sloughed away, and, excepting the exfoliation of some portions of bone, nothing interrupted the healing of the stump. She did not, however, regain her health. *Case* 20.—A woman, aged 39, under the care of Mr. Stubbs, in the Liverpool Royal Infirmary, on account of disease of the head of the tibia. Her health was failing. Amputation. Recovery. *Case* 21.—A man, aged 42, under the care of Mr. Long, in the Liverpool Royal Infirmary, on account of a large popliteal aneurism. The existence also of an aneurism in the abdomen led to the ligature of the femoral artery being deferred. The popliteal tumour meanwhile increased, and gangrene of the foot and leg supervened. Amputation through the thigh was now performed. During the operation the patient very nearly died. Afterwards, however, he gradually rallied. The stump at the time of report had healed, and his health had much improved. The abdominal aneurism was much smaller in size. *Case* 22.—A woman, aged 24, under the care of Mr. Lowdell, in the Brighton Hospital, on account of disease of the knee-joint. Her health was much impaired. Amputation. Recovery. *Case* 23.—A woman, aged 32, under the care of Mr. Stubbs, in the Liverpool Royal Infirmary, on account of diseased knee-joint. The disease was in abeyance, but the limb anchylosed in such a position that it was worse than useless. Amputation. Recovery. *Case* 24.—A healthy boy, aged 9, under the care of Mr. Johnson, in the Derby Infirmary, on account of a compound fracture of the left leg, opening the knee-joint. The injury had been caused by a railway engine passing over the leg, and the right thigh was also much lacerated. Primary amputation of the left thigh. Death, from exhaustion, on the eighteenth day. The stump had done fairly, but there had been profuse suppuration from the right thigh. During the last week of life, he had been in a semi-tetanic condition. No autopsy. *Case* 25.—A man, aged 20, under the care of Mr. Johnson, in the Derby Infirmary, on account of diseased knee-joint. He was the subject of phthisis, and extremely emaciated. The knee had been extremely painful, and, at his own urgent desire, amputation was performed. Death from diarrhœa and exhaustion on the eleventh day. No autopsy. *Case* 26.—An unhealthy woman, aged 30, under the care of Mr. Shaw, in the Durham Infirmary. She was the subject of secondary syphilis; and also suffered from necrosis of the femur, with disease of the knee-joint. For a few days after the amputation she did well; but diarrhœa supervened, and she died on the tenth day. *Case* 27.—A pale, strumous lad, aged 18, under the care of Mr. Johnson, in the Derby Infirmary, on account of diseased knee-joint. Amputation. Death from bronchitis on the nineteenth day. The stump was all but healed. At the autopsy the lungs were seen to contain much scattered tubercle. *Case* 28.—A girl, aged 15, under the care of Mr. Sayle, in the Lynn Hospital, on account of diseased knee, of two years' duration. For five months she had suffered from symptoms of phthisis. After an ineffectual attempt to recruit her health, at the urgent desire of her friends, amputation was performed. Death, from exhaustion, on the twenty-second day. *Case* 29.—A healthy man, aged 55, under the care of Mr. Benfield, in the Leicester Infirmary. Secondary amputation was performed fifteen days after a severe compound fracture of the leg, sloughing having occurred. No union of the flaps followed, and he sank under an exhausting diarrhœa on the fourteenth day. No lesion of importance was observed at the autopsy. *Case* 30.—A feeble man, aged 65, under care in the Bradford Hospital, on account of a malignant growth in the calf of the leg. Amputation. Death forty-eight hours afterwards from exhaustion. No autopsy. *Case* 31.—A man, aged 50, under Mr. Turner's care, in the Brighton Hospital. Secondary amputation on the fourth day, after a compound fracture. Death eleven days after the operation, from exhaustion. *Case* 32.—A feeble man, aged 22, under the care of Mr. Husband, in the York County Hospital, on account of diseased knee-joint. Amputation. Death from pyæmia three weeks afterwards. The veins of the medullary canal were found inflamed. *Case* 33.—A man, aged 26, in good health, under the care of Mr. Hughes, in the Staffordshire General Hospital, on account of a crushed leg. The injury had been inflicted in a railway accident, and there was also severe bruising of the opposite thigh. Amputation. Death on the fifth day, the shock having never been well recovered from. *Case* 34.—A man, aged 36, under the care of Mr. Smith, in the Leeds Infirmary, extremely emaciated from old standing disease of the knee-joint. Amputation. Death from exhaustion on the twenty-first day. *Case* 35.—A man, aged 46, under the care of Dr. Page, in the Carlisle Infirmary, having suffered from an ulcer on the thigh for twenty-six years. A tumour had recently formed in the popliteal

space, clearly of malignant nature. Amputation in the upper third of the thigh. As the influence of the chloroform passed off, intense pain and spasmodic twitching of the stump supervened. Continuous vomiting, and extreme prostration followed, and terminated fatally within twenty-four hours. *Case* 36.—A man, aged 27, under the care of Dr. Page, in the Carlisle Infirmary, on account of a severe compound fracture of the leg. He had lost much blood, and was in deep collapse. Having been somewhat rallied by stimulants, primary amputation was performed at the knee-joint. As the chloroform was recovered from, severe pain was complained of, and in spite of the free use of brandy and opium, death followed in twenty-four hours.

(To be concluded next week.)

NOTES AND QUERIES.

"He that questioneth much shall learn much."—*Bacon.*

ANSWERS.

To No. 106.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—I have pleasure in sending you the lines which your Correspondent has requested. I give them from memory, having not seen them probably for thirty years. I think, however, they are tolerably correct. They are highly poetical, and breathe a Christian sentiment which it would be well for us all to cultivate. I have some doubt whether "M.D." is correct in supposing that the lines were found in the skeleton case at St. Bartholomew's Hospital. My impression is very strong that they were found in a similar receptacle at the Royal Academy. I am, &c.

Minster Yard, York, April, 1856. Richard Hey.

Behold this ruin! twas a skull,
Once of æthereal spirit full;
This narrow cell was life's retreat,
This space was thought's mysterious seat.
What beauteous pictures filled this spot!
What dreams of pleasure,—long forgot!
Nor love, nor joy, nor hope, nor fear,
Has left one trace or record here.

Here, in this silent cavern, hung
The ready, swift, and tuneful tongue;
If falschood's honey it disdained,
And where it could not praise, was chained
If bold in virtue's cause it spoke,
And gentle concord never broke;
That tuneful tongue shall plead for thee
When death unveils eternity.

Beneath this mould'ring canopy
Once shone the bright and busy eye;
Yet start not at the dismal void!
If social love that eye employed;
If with no lawless fire it gleamed,
But with the dew of kindness beamed,—
The eye shall be for ever bright,
When stars and suns have lost their light.

Say! did these fingers delve the mine?
Or with its envied rubies shine?
To hew the rock, or wear the gem,—
Can nothing now avail to them;
But if the page of truth they sought,
And comfort to the mourner brought;
These hands a richer meed shall claim,
Than all that waits on wealth or fame.

Avails it whether bare or shod,
These feet the path of duty trod?
If from the bowers of mirth they fled,
To soothe (?) affliction's humble bed;
If grandeur's guilty bribe they spurned,
And home to virtue's lap returned;
These feet with angel's wings shall vie,
And tread the palace of the sky!

To No. 104.—Inhalation of Chloroform and Alcohol.

Sir,—I beg to state, in reply to the question of "C. S." in the "Notes and Queries" of your Journal of to-day, that I have seen chloroform inhaled and give relief in pulmonary consumption, chronic bronchitis, spasmodic asthma, and spasmodic croup. In the last two complaints the inhalation of chloroform has been of signal benefit. It has cut short the attack of spasmodic asthma in every instance in which I have seen it applied, and every case of spasmodic croup treated by the vapour of chloroform has ended in recovery, although the number so treated has been considerable. Dr. B. W. Richardson treated a case of inflammatory croup successfully by the exhibition of chloroform vapour. I have had no experience of the inhalation of alcohol, beyond that which enabled me to ascertain that it does not yield sufficient vapour to produce any appreciable narcotic or stimulant effects in a reasonable time. I am, &c.

Sackville-street, April 19. John Snow, M.D.

Medical Times & Gazette.

SATURDAY, APRIL 26.

THE PROSPECTS OF MEDICAL REFORM.

Although Mr. Headlam's Medical Bill and that of Lord Elcho, have both been referred to a Select Committee of the House of Commons, the prospects of Medical Reform are not so gloomy as they may at first sight appear. The Government is evidently anxious to do something for the Profession; and before the present Session of Parliament passes away, we may fairly hope, unless unforeseen obstacles should supervene, that some steps at least will be taken to untie the Gordian knot which Medical Reform presents to our legislators. That any Bill will pass which will satisfy all the members of the Profession, we cannot anticipate; but a great point will be gained if some of the conflicting views now existing can be reconciled, and some of the obvious anomalies in our social condition can be removed.

In the mean time we are compelled to deplore the chaotic state into which our Profession is at present plunged by the want of some legislation; and we cannot but observe the manner in which the absence of any common principle of action among Practitioners re-acts upon those who are in the state of pupilage. Under a well-digested scheme of education and examination, a disciplined army of Medical Practitioners might be rendered qualified for the service of the public; a sound preliminary general education would precede the strictly Medical studies; the latter would be conducted at the Medical Schools in consecutive order, and the progress of the pupils would be sedulously watched by conscientious teachers; and the examinations, at the different Colleges, instead of being a bugbear to the aspirant, would be merely the easy and, as it were, natural termination of the Student's career. Without assuming that any plan could ever be devised which should harmonise all existing systems of education, there is no doubt that, by a generous co-operation on the part of all engaged, combined with mutual concession and forbearance, a certain average amount of competence might be secured which would satisfy the just demands of the Profession, and which would be eminently advantageous to the public.

But, under present arrangements, we cannot wonder if all parties are dissatisfied. Young pupils entering the Medical Schools with the best intentions, and fortified by the kindest and soundest advice, are soon led astray by the example of the idle and the careless, and their mind is soothed by the prospect, that after a career of folly, and perhaps vice, on the part of the pupil, the "grinder" will store his brains with a sufficient stock of knowledge to save him from being "plucked;" and he will then be sent forth armed with a legal document, enabling him to enter upon the practice of his Profession. We appeal to the Professors and Lecturers of our Schools of Medicine, and ask, whether this is an overdrawn statement? and whether those who have systematically neglected the Lecture-Room, and the Dissecting-Room, and the Hospital, for the more fascinating allurements of the billiard-table and the casino, are not eventually, by the means we have indicated, thrown upon the public with some of the same credentials as those who have sedulously devoted themselves to careful obser-

vation in the Hospital and to continuous reading at home? The authorities at our Hospitals and Medical Schools know and deplore this lamentable state of affairs; and yet, while the laws relating to the Profession remain in their present anomalous position, the teachers are incapable of devising or applying a remedy. If one School should be bold enough to exert a vigilant supervision over the progress of the Students, the latter would probably migrate to some other establishment where discipline was more lax, and thus it would happen that the school and the teachers who are most worthy of patronage would in all probability be compelled to close their doors for want of support.

The Examining Boards, on the other hand, instead of co-operating to elevate the standard of Medical qualifications, are too often guilty of unworthy rivalry, in underselling one another, or in lowering their demands upon the capability of the candidate. Hence, too often, the question with the latter is, not to determine how he shall pursue his studies with the greatest diligence and the greatest profit, but how he shall escape the otherwise necessary penalty of ignorance and incompetence, by selecting an examination which shall demand a minimum of knowledge on his own part.

Hence arises a fertile source of dissatisfaction among the practising members of the Profession. Those who have diligently and conscientiously performed the duties required of them as Students, who have honourably and regularly presented themselves at their School and College examinations, who have made themselves masters of the manifold sciences constituting or bearing upon the healing art,—naturally feel themselves aggrieved when they are superseded in the opinion or the favour of the public, by some Jack Nokes or Tom Styles, who has merely leapt over the barrier of examination by the help of a "grinder." Yet the public makes no distinction; both parties possess diplomas, and, in the general opinion, one person is as good as the other, so far as qualification is concerned.

We have no desire to specify any Institutions to which the above remarks may seem to apply, the more especially as the time seems to have arrived when something like harmony may be educed from seeming disorder, by the cultivation of a mutual desire to select what is good in any of the existing systems, and to reject what is bad; and by the abandonment of rivalry and the promotion of a generous co-operation among the examining and licensing bodies.

Bad as the present system undoubtedly is, yet there are bright ornaments to our Profession everywhere to be found,—men who would dignify the art and science of Medicine in any region of the globe. Much, too, as we may complain, and justly complain, of the neglect shown to our Profession by the State, we doubt whether there is any other nation where Medical men hold a higher, or so high, a social position as in our own. Knowing, then, the valuable material with which we have to work, it is surely our duty to shape and to fashion it to the utmost degree of perfection which it is capable of attaining; and, under a better plan than that which now prevails, we may hope to witness a far higher and more general development of Medical science than that which even now, under the present defective arrangements, we cheerfully acknowledge.

We hope, therefore, that the Profession in general, and the Corporations which have so long, and not injuriously, guided its destinies, will examine the whole question in a fair and candid light; and that, throwing aside all petty jealousies, they will devise plans for the public good, in order that, when the subject of Medical Reform is again brought before the Legislature, we may bid defiance to our enemies by, at least, being able to point to the unanimity which prevails among ourselves.

MR. HUXLEY'S LECTURES ON NATURAL HISTORY.

On Saturday next we shall commence a Course of Lectures on General Natural History, by Mr. T. H. Huxley, F.R.S., Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology at the Royal Institution. This Course will comprise a general view of the structure of the Animal Kingdom from its lowest to its highest forms, commencing at the monad, and advancing through a multitudinous series up to man, the highest being in the scale of animal development. The views which will be advanced upon the varieties presented by Animated Nature will be based upon Comparative Anatomy and Physiology, and an attempt will be made to prove the unity of design manifested in all the works of Nature, amidst an apparently infinite diversity of forms. The progressive evolution of parts and organs from the germinal vesicle of the yelk of the egg till they assume the proportions of the perfect animal, will be found analogous to the gradual transition of forms from the simple to the complex in the animal series; and the various beings which in countless multitudes people the earth, the ocean, and the air, will all be considered in their different ranks as so many links in the great chain of creation, all starting originally from the same elementary cell of embryo life. These Lectures will form the only Course yet published on the same subject, if we except the admirable Lectures, published in the pages of one of our contemporaries, by Professor Grant, more than twenty years since. Mr. Huxley brings to his task a profound knowledge of his subject, and a reputation in science already sufficiently high to ensure public attention to his views; and we have no doubt that his researches in one of the most fascinating departments of Natural Science will afford unmixed gratification to our numerous readers.

THE WEEK.

In an account which we give this week of a trial in the Wells County Court, it appears that the Judge has decided against the right which a Medical Practitioner has to recover fees in a surgical case, unless he is a Member of the College of Surgeons. The plaintiff in the case mentioned is described in the London and Provincial Medical Directory as being in practice before 1815, and no imputation was made against his skill and experience, although a cross-action had been brought against him by the defendant for *malapraxis*, in which action the defendant was defeated. The plaintiff accordingly sued for the amount of his claim for Professional attendance, and the technical defence now made was, that not being a member of the College of Surgeons, he could not recover. The Judge coincided in this view of the case, and the plaintiff was nonsuited. Although we doubt very much whether this judgment is valid in point of law, we have no doubt that it is founded in reason and good sense; but we cannot help thinking that, if it is to be taken as a precedent, many very respectable men now practising without diplomas, under the shield of being in practice before 1815, will be placed in rather an awkward predicament, if they are ever compelled to sue for their bills in Surgical cases in a County Court.

On Monday last, Dr. Sandwith delivered a Lecture at the Royal Institution upon the Siege of Kars. The vast theatre of the Institution was crowded in every part, and the lecturer was listened to with the deepest attention. Dr. Sandwith gave a brief, but very graphic, account of this memorable Siege, terminating, as is well known, in the surrender of the devoted city, after its brave defenders had been decimated by cholera and starvation, and the few survivors—men, women, and children—were emaciated by hunger and disease. The

chief points of the lecture were the admirable description of the attack of the Russian hosts upon the city of Kars on the 28th of September, and their repulse by the garrison; the visit to the bloody field after the unsuccessful assault; the recital of the horrors of pestilence and famine before the surrender; and the noble and touching interview between the two Generals, Williams and Mouravieff; Dr. Sandwith's address was eminently successful, and the modesty with which it was delivered was no less remarkable than the eloquence and pathos with which it was composed. Dr. Sandwith is, in every sense, an honour to our Profession.

The Burdon poisoning case has been again dragged before the public by the refusal of Wooller, the husband of the deceased, to pay the account of Dr. Jackson, who attended the unfortunate lady during her fatal illness. Dr. Jackson accordingly summoned Wooller to the County Court at Darlington, to recover the amount of his bill. The plaintiff was subjected to a long and insulting cross-examination, in which it was insinuated that the death of the deceased was owing to neglect, or something worse, on the part of the Medical attendant, and an attempt was made to show that Dr. Jackson was practising illegally. The latter attempt entirely failed, as Dr. Jackson is legally qualified to practise in England; and the other infamous insinuation is equally unfounded. Wooller does not appear to have increased his popularity by his late exhibitions, for we are told that it was difficult to repress the open exhibition of feeling against him on the part of the public in the Court; and a verdict having been given for the full amount to Dr. Jackson, that gentleman was drawn home by the multitude in a carriage from which the horses were unloosed, amid loud shouts of triumph. As to who was really the guilty party in the late poisoning case at Burdon, people will of course draw their own conclusions; but there can be no doubt whatever that the Medical men concerned have been infamously ill treated from first to last.

A Lectureship on Public Health has been instituted by the authorities of St. Thomas's Hospital in connexion with their Medical School, and Dr. Headlam Greenhow has been appointed to the chair. The lectures will be delivered during the summer session—one on each Wednesday afternoon. Dr. Greenhow's long services in the cause of sanitary science render him eminently well qualified for the Lectureship, the establishment of which does great credit to the authorities of St. Thomas's Hospital.

A diabolical attempt at assassination upon a large scale, which very nearly proved successful, was made on Thursday night week at a restaurant's in Rupert-street. The assassin has not yet been apprehended, and a great degree of mystery hangs over the whole affair, as no motive can be assigned for the murderous act. The weapon employed was a stiletto, and four men were dangerously wounded, all of whom were conveyed to, and are now lying in, Charing Cross Hospital. In the case of one man, named Rouelli, the stiletto, which is a three-cornered instrument, appears to have perforated the stomach; and immediately after the infliction of the wound, the man exhibited symptoms of sudden collapse, he became deadly pale, and his pulse was almost imperceptible; but, by the administration of large and repeated quantities of brandy and of drachm-doses of laudanum, he rallied, to the surprise of the Medical attendants, and he still continues to live, although his condition is very precarious. He vomited a large quantity of blood soon after his admission, and it would seem that his safety, so far, has depended upon the evacuation of this effused fluid, and the circumstance that probably the upper portion of the stomach is alone injured. The other three men are all wounded in the lungs, and although they are all suffering from pulmonary inflammation, their cases are proceeding rather favourably.

We commence to-day a course of Lectures on the Nature and Treatment of the Diseases of the Ear, delivered at St. Mary's Hospital Medical School, by Mr. Toynbee. The subject is so full of interest to the Profession, and has occupied so much of Mr. Toynbee's attention during many years, that we hope the course will be found of much value to our readers.

We are sorry to find that difficulties are still thrown in the way of the newly-appointed Officers of Health, by the refusal of Registrars to communicate to them the necessary returns of deaths, without payment. The Registrars have formed a kind of league, and bind themselves to demand half-a-crown a-week for ten deaths, or for any number less than ten, and threepence each besides for every death beyond ten. Thus each Health Officer, supposing 1000 deaths to occur in his district, must pay about twelve guineas annually. This demand of the Registrars is said to be sanctioned by the Registrar-General. Let us beg of the Medical Officers of Health to demand energetically the *Medical Certificates of cause of death*, which are now thrown aside as waste paper by the Registrars, and which would give all the information required, except in the fractional number of cases in which no Medical Certificate is given. These Certificates are furnished gratuitously by Medical Practitioners, and their use ought to be permitted without payment, by the Medical Officers.

REVIEWS.

Cell Therapeutics. By William Addison, M.D., F.R.S. 8vo. Pp. 84. London: 1856.

The subjects under consideration in this work are, 1. Reparation; 2. Cells and cell-growths (granulations and pus); 3. Blood distempers (small-pox, scarlet fever, gout); 4. Inflammation; 5. The distinction between vascular tissue and parenchymatous substances; 6. Organic diseases, and the process of repair (consumption, cancer); 7. Chronic inflammation.

The following conclusions will present our readers with the author's views, which will be found to correspond with the best established and most recent doctrines and facts in physiology, from which, if our space permitted, we should readily have borrowed more freely.

"First. That cell-growth in the common vascular tissue is the natural method of repair, which, like all other growths, may succeed or not, according to contingent circumstances. Regularity or conformity to natural growth and success, entitle it to be called the process of repair, healthy inflammation, or cell-therapeutics. Irregularities, exuberance, protraction, and failure, rank under the term "unhealthy inflammation," and are placed in the class of diseases.

"Second. This new growth appears in two prominent forms—granulation and pus. The former united to the texture, from which it grows by new blood-vessels, repairs solutions of continuity by metamorphosis into connective tissue. The latter, a deciduous cell-growth, discharges sloughs, and, in virtue of the property of selective absorption in the elementary cells, eliminates poisons from the blood. Vesicles, pustules, abscess, suppuration, ulceration, and fungosities, are varieties, and may denote irregularities of cell-growth."

These conclusions are deduced, by close and careful reasoning, from a series of cases and observations which scarcely admit of abridgment. The Essay forms a highly instructive monograph, expounding the physiology of disease; and is worthy the high reputation of its author.

Diary of the Crimean War. By Frederick Robinson, M.D., Assistant Surgeon, Scots Fusilier Guards. Pp. 443. London: 1856.

This work is neither more nor less than what it professes to be, namely, a Diary of the Crimean War; and the author gives a faithful record of what he saw and heard, from day to

day, with scarcely a single intermission, from his departure to join the troops at Malta in March, 1854, to his camp life before Sebastopol, in December 1855. How many triumphs and reverses befel the British Army, during that eventful period—how many noble lives were sacrificed by famine, by pestilence, and the sword—how the victories at Alma and at Inkermann were counterbalanced by the disasters of Balaklava and of the Redan—how much courage and devotion on the part of the troops was rendered nugatory by official mismanagement,—all the world knows but too well. The relation given by an officer who was on the spot during the whole of the period, who shared in many of the dangers of the battle-field, and who narrowly escaped from being carried off by disease, will be read with intense interest by all, and especially by the Profession to which Dr. Robinson belongs. Medical and Surgical details seem to be purposely avoided; but the scenes and characters of the great European struggle in the Crimea are delineated with considerable force; and the simple language in which the stirring transactions of the last two eventful years are related, impress the stamp of unmistakeable truth upon the whole of the narrative.

A Practical Treatise on the Diseases, Injuries, and Malformations of the Urinary Bladder, the Prostate Gland, and the Urethra. By S. D. Gross, M.D., Professor of Surgery in the University of Louisville, etc. Second Edition, revised; with One hundred and eighty-four Illustrations. Pp. 925. Philadelphia: Blanchard and Lea. London: Trübner. 1855.

The work before us is creditable to American authorship and Surgery, and a useful guide for Practitioners. It embodies a large mass of information on the subject of diseases of the urinary organs, in which, although the author has availed himself freely of the writings of others, there is yet a good share of original matter, including several interesting cases, and bearing the marks of considerable personal experience.

Of what is generally known or described by authors, it were superfluous for us to speak; but we may lay before our readers a few jottings respecting some of the rarer diseases, or cases of interest.

For example, our knowledge of growths from the mucous membrane of the bladder is not yet complete. Professor Gross enumerates the different varieties of cancer and tubercle, and polypoid growths of so-called benign character; then, having treated of a sort of fungous growth, which is evidently epithelioma, he gives a case of a rare kind of vascular growth, which, we have reason to believe, is at the present moment of considerable interest to some of our readers:—

"The patient was a widow, 72 years of age, of a spare habit of body, and the mother of five or six children. Though naturally feeble, her general health was always good until about three years before her death, when she began to complain of uneasiness in her bladder, attended with a frequent inclination to void her urine, which was always mixed with blood. Her symptoms gradually increased in violence; she became pale and anæmic, and finally died completely exhausted. For some time before her death, she suffered severely from pain in the bladder during micturition, especially immediately after the passage of the last drops of water. She never experienced any retention, and the blood always came away in a dissolved condition. Upon examining the bladder after death, a tumour was found upon its floor, of a *soft, spongy character, of a florid colour, circular in its form*, and about 2 inches in diameter. It seemed to spring from the mucous membrane, and had a rough, irregular surface, like that of a cauliflower. The parts around were free from inflammation and other disease."

Puncture of the bladder seems to be an operation as little in favour in America as it is with the mass of English Surgeons. The author has never performed it.

The unequal distribution of calculous disorders, and the causes of it, form a whole mine of inquiry, as yet almost unexplored. Dr. Gross contributes some interesting facts, but confessedly leaves the subject of causation in as great obscurity as ever. The great stone states of the Union, he observes, are Kentucky, Tennessee, Virginia, Ohio, North Alabama, and perhaps Missouri; in all the other states the disease is very rare. But,

"If we seek for an explanation of the difference in a difference of climate, geological formation, and habits of life, we shall be disappointed, for there are really no essential variations in any of these particulars between the several states above mentioned, or between these states and those which are in a great degree exempt from these affections. Thus there is no essential difference in the climate, soil, and productions of Kentucky and Indiana; or in the food, drink, occupations, and modes of life of their inhabitants; and yet in the one, stone in the bladder is very frequent, and in the other, very rare. . . . The food of the inhabitants of the calculus regions does not differ from that used in some of the other states where the disease is more rare. The most common articles are wheat and corn bread, unleavened biscuit, potatoes, hominy, tomatoes, cabbage, turnips, apples, and meat, with coffee, tea, and milk at breakfast and supper. Corn bread and pork—fresh, salted, and smoked—are consumed in large quantities by the negroes, as well as by the whites. Much of the food is taken hot into the stomach, as well as hastily, and consequently without due mastication. Many of the families, even among the lower classes, eat meat twice or even thrice a-day. . . . Lime-water is used by a large majority of the people in the calculus districts; but what is remarkable, it is as freely employed in other portions of the country, where stone is either altogether unknown, or very rare. . . . . Our German immigrants use large quantities of beer, and are singularly exempt from calculous disorders."

We cannot quote at greater length; but the Professor having give many interesting details on this subject, acknowledges that anything like cause and effect has not been established respecting the distribution of these disorders.

The exemption of the negroes is extraordinary. It is amply proved, that stone is at least three times more frequent among the whites. Dr. Cartwright, who had enjoyed an extensive practice for thirty-five years among slaves, never met with a single case of stone in the bladder among them.

"And yet," he adds, "their mode of life, their gluttony, their fondness for ardent spirits and highly-seasoned food, their indiscriminate use of all kinds of water, and their excessive venery, would seem to be sufficient causes for the prevalence of calculous disorders among them."

Respecting difficulties in lithotomy from large size of the stone, our author gives some cases which are amusing and characteristic. One operator, on cutting into the bladder from the perinæum, finds himself in what he calls a "very bad box." The stone is so large that he cannot extract it anyhow. So, rather than abandon the patient to his fate, he proceeds at once to the high operation, and, after great trouble, succeeded in extracting a stone weighing eight ounces. Notwithstanding this double operation, the patient was walking about on the eighteenth day, and the only inconvenience complained of was caused by a "communication between bladder and rectum." The operator closes his report by saying, "Mr. W. is a very stout, tough kind of a man; I do not believe that thunder and lightning could kill him."

"Many years ago, Dr. John D. Godman cut a patient, at Cincinnati, for a stone which was found to be so large as not to admit of crushing or extraction. After numerous attempts to free the bladder, the case was abandoned as hopeless. The wound was healed up, and the man subsequently walked to Carlisle, (Pennsylvania,) a distance of nearly 700 miles. Here he was operated on a second time, with like result, by Dr. Given. After recovering he proceeded to Philadelphia, where he was finally relieved by Dr. Gibson, and Dr. Physick. The bladder being opened, the stone was found almost to fill the organ, and was, therefore, obliged to be broken before it could be extracted. The patient remained in a fortnight, and again walked home, as Dr. Chapman facetiously remarked, "a stone lighter than when he came!"

The subject of stricture is rather a ticklish one; but we may mention, as a matter of fact, that Professor Gross is not in favour of the operation for the relief of stricture by external incision. As to the question of impermeability of strictures, he very justly ridicules the absurd assumption that wherever urine can be squeezed out, there an instrument can be passed in; and says of a great Northern Surgeon, that probably, as in the case of his illustrious predecessor Liston, a more enlarged experience may convince him that it is possible to fail in the use of instruments. And respecting what is commonly called "Syme's operation," he avers, with equal emphasis, that in some cases its propriety is unquestionable, and yet that such cases are exceedingly rare.

Here we must take leave of this useful and readable book.

We are compelled to add, that of the 280 engravings which adorn it, not half, and those as poor as possible, are original; while the remainder are taken from Erasmus Wilson, Druitt, and Fergusson, some few with acknowledgment of their source, but more without that act of courtesy.

A Report of Some Cases of Operation, treated for the most part in Addenbrooke's Hospital, Cambridge. By George Murray Humphrey, Esq., Surgeon to the Hospital. 16mo. Pp. 67. London: 1856.

The operations related in this pamphlet are,—division of the stricture of the urethra, amputation at the hip-joint, excision of the condyle of the lower jaw, ovariotomy, encysted urinary calculus, tracheotomy,—presenting an instructive commentary upon each of these cases, and constituting a valuable contribution to Surgical science.

Cretins and Cretinism: a Prize Thesis of the University of Edinburgh. By George S. Blackie, M.D., Curator of the Botanical Society of Edinburgh. 8vo, pp. 70. Edinburgh: 1855.

A very interesting monograph, giving a complete history of the physical character of Cretins, their geographical distribution, the geological features of the districts in which they are found, the relationship of cretinism to goitre and idiotcy, the causes and the cure of cretinism. The causes are shown not to consist in any uniformly present noxious agent, but to be dependent upon bad air, bad food, unhealthy origin, etc. The cure must necessarily be influenced by the early removal of the unfortunate sufferer from the midst of these causes. Such are the principles upon which the success of Dr. Guggenbühl's institution has been founded.

Die Ohrenheilkunde in den Jahren 1851—1855*; ein Nachtrag zur Erkenntniss und Heilung der Ohrenkrankheiten.* Von Dr. Wilhelm Kramer.

Aural Therapeutics in the Years 1851—1855*: Being a Supplement to the Nature and Treatment of Diseases of the Ear.* By Dr. W. Kramer. 8vo, pp. 136. Berlin: 1856.

Dr. Kramer has here collected together abstracts of all the principal writings that have appeared during the above-mentioned period with reference to the treatment of diseases of the Ear; and has very freely criticised the opinions and statements of the various authors. We observe that he is particularly severe upon our countrymen, whose contributions to aural pathology and therapeutics, according to the author, have very little value. We would draw the attention of British Aurists to Dr. Kramer's report, nothing doubting that there are those among them who can vindicate this department of British Medical science from his disparagement.

PROVINCIAL CORRESPONDENCE.

IRELAND.

(From our Dublin Correspondent.)

Dublin, April 21, 1856.

I have seen it noticed in the Parliamentary Papers of the proceedings of the House of Commons, that Mr. Horsman, the Chief Secretary for Ireland, has obtained leave to introduce a Bill "To Explain and Amend the several Acts relating to the Establishment of Lunatic Asylums" in this country. The origin of Mr. Horsman's Bill is due to a dispute which has been going on between the Government and Governors of the Belfast Lunatic Asylum for the last four or five years, and which was brought to an issue by an unanimous decision of the Court of Queen's Bench in Dublin, adverse to the Government, on the 21st of January last. In the Act under which these asylums were established, power was given to the Lord Lieutenant for the time being to nominate the several officers to these Institutions, and, assuming the power therein conveyed to include the appointment of chaplains also, these officers were appointed to several of the District Asylums, and, among others, to that of Belfast; the Local Governors of that Institution opposed to the appointment of such officers in a district where so many religious denominations exist, and on other grounds also, resolved to starve out the so-nominated chaplains, by not presenting for the salaries directed by the Government to be paid to them. The question at length came into the Court of Queen's Bench, on an application for a *mandamus* by the Attorney General; and, after being argued during several Terms, was, for the present, concluded by the decision of the Court I have above referred to. The intention, then, of the Act now introduced by Mr. Horsman, is, I believe, to give the power the Lord Lieutenant assumed, it appears, illegally, to the Irish Government. Should your readers wish for further information on this disputed chaplaincy question, they will find it stated in full in the November numbers of the *Dublin Quarterly Journal of Medical Science*, for the years 1852-3-4, in its Annual Reviews on "Insanity and Hospitals for the Insane." Would not this be a favourable opportunity for obtaining from the Legislature authority to grant superannuation pensions to the officers and servants of these institutions? a subject which has engaged the attention of all interested in this most important branch of Medicine, not alone in Ireland, but in England and Scotland. I have reason to know, that, in Ireland at all events, more than one instance exists at the present moment in which the authorities are, on the very best grounds, most anxious to effect a change in some of the principal officers, but feel reluctant to dismiss them in consequence of being unable to make any provision for them in their old age, after years of faithful servitude. It is superfluous to remark on the inexpediency, and, indeed, impropriety of retaining inefficient persons in such important and responsible offices as those of individuals charged with the care of lunatics. When I obtain a copy of the Bill, I may, perhaps, in a future communication, revert to these questions.

At a meeting of the Royal Dublin Society, held on the evening of Wednesday, the 16th instant, under the presidency of the Lord-Lieutenant, for the purpose of distributing the prizes awarded at the eminently successful cattle-show which took place on that and the following days on the Society's premises, Dr. W. Barker read a paper on the Poisonous Secretions produced by Plants and Animals during their Growth and Decay, and on the Forces in Nature tending to counteract these Poisonous Influences. As examples he adduced the respiration of animals, the excreta of animal digestion, the effects produced on soils by the secretions from the roots of plants; and brought forward many analogies to show that all organized beings produce, in the changes of their structure, results tending to the destruction of their own life; but that nature provided against this effect by certain counterbalancing influences, the principal of which were, the instability of organic products, which provides for their rapid metamorphosis into innocuous substances, the physical effects of heat, light, and electricity, each of which aided in producing changes of place or constitution in the products of organic life. He referred also to the laws of diffusion of gases as aiding in this process, and the important results attendant on the allotropic condition of oxygen in the atmosphere. He concluded by referring to the important moral results which followed from these laws in producing changes on the earth's surface most beneficial in their results to organic life and human civilization.

The Society just mentioned, ever active in the promotion of the interests of practical science and art, have determined to give greater publicity to their labours by the substitution of a Quarterly Journal for the minutes of their proceedings, hitherto circulated among members only. Of this Journal the first number has just appeared. Of the majority of the papers contained in it I have already given you short abstracts in my reports of the evening meetings of the Society; those which I have not so noticed, though valuable in themselves, did not present features calculated to be especially interesting to Medical readers.

The President of the Pathological Society, Dr. Stokes, has marked the approaching termination of the eighteenth annual session of the Society by a novelty in its history,—a *conversazione*, given at his residence on the evening of Friday the 18th instant. This most interesting and agreeable *réunion* was not confined to members of the Society, nor even of the Profession, several non-Medical gentlemen distinguished in the paths of science and literature having been present on the occasion.

At the fourth meeting for the session, of the Association of

the College of Physicians, Dr. Lees read the history of the passage of a biliary calculus, interesting from the fact that the sufferer was a Medical Practitioner, and, consequently, qualified to attach its due importance to each symptom, and to describe his case more accurately than a non-Professional patient could have done. Dr. Henry Kennedy detailed the case of a woman, aged 30, in whom a gall-stone, impacted in the cystic duct, produced such acute suffering, and intense local inflammation, that death occurred within four days from the time she first complained.

At the meeting of the 5th of March, Dr. Montgomery gave a description of a case of singular deformity, in which the whole of one lower extremity and the side of the pelvis were deficient at birth, owing to cohesion of the placenta with the body of the child. I have already mentioned this case as having been brought by Dr. Barton, with Dr. Montgomery's permission, before the Pathological Society. Dr. Law made a communication respecting a new sign which he had perceived in adhesion to the pericardium.

Dr. Moore, of Hume-street, read a paper upon Strumous Peritonitis, after which Dr. Lees detailed the particulars of a case of fatal jaundice from suppression of bile, which occurred under his care in the Meath Hospital. The case was evidently one of that terrible affection of the liver termed by Rokitansky "acute yellow atrophy;" and Dr. Lees remarked that it belonged to the class of hepatic diseases in which jaundice is caused by the non-elimination of the bile, owing to the secreting power of the hepatic cells being seriously interfered with; and that it furnished another instance in proof of the retention of this fluid being more decidedly and rapidly poisonous than its re-absorption, which occurs in the more usual form of jaundice from retention caused by mechanical obstruction to its passage into the intestine; the elements of the bile not being separated from the blood, but retained in the system, act as a poison, just as those of urea do in cases of suppression of urine, or in that condition so often met with in Bright's disease, and termed "uremia."

GENERAL CORRESPONDENCE.

THE L.S.A. QUALIFICATION.

[To the Editor of the Medical Times and Gazette.]

Sir,—One of your Correspondents, writing in a very "*Noli-me-tangere*" style, and signing himself as "One who Holds a Double Qualification," has—either from a desire to mislead, or from ignorance of existing facts—made several very incorrect statements. He is evidently very jealous of the power which the Society of Apothecaries possesses, but more particularly of the privileges afforded to its Licentiates; and expresses a hope that the "New Medical Bill" will grant the same to him, without his undergoing the ordeal at Blackfriars; but whether this would be an act of justice towards those who have already passed that examination, I shall not now stop to inquire, but endeavour briefly to point out the real distinction between the qualification of the College and that of the Hall, because your Correspondent would make it appear to be merely a matter of £ s.d.; for, in answer to his own question, as to the difference between the two men, he states that the M.R.C.S. has to attend all the lectures required for the Hall, whereas the L.S.A. need not attend those on Surgery; thus making the education of the former the more expensive of the two. This, however, is certainly not the case; for a candidate for the Apothecaries' licence has to attend to Practical Chemistry in the laboratory, and to lectures on Medical Jurisprudence, Clinical Medicine, and Botany, which the M.R.C.S. has not; also, to two courses on Medicine and Midwifery, instead of one, as required by the College of Surgeons, in addition to which he has to produce an indenture of five years' apprenticeship, (which in my case cost £120), thereby making the education of the L.S.A., with regard both to time and expense, very greatly exceed that of the M.R.C.S.. But this is not all; for the former has to undergo examination on ten subjects, while the M.R.C.S. is merely examined on three; thus escaping the rather important branches of Chemistry, Materia Medica, Toxicology, Pharmacy, Botany, Principles and Practice of Medicine, Midwifery, and Latin, concerning which those who are members of the College only may be, and indeed sometimes are, lamentably ignorant.

There are many Practitioners whom I know intimately, who, although not Licentiates of the Hall, regularly practise as such, dispensing their own medicine, and yet are never in any way molested; nor would I wish them so to be, for the time has arrived when all quarrelling among ourselves should cease, and brotherly union be encouraged; but when any one volunteers to point out distinctions to us, he should at least do so honestly and correctly, which I, who have complied with the regulations of both College and Hall, know not to have been the case with your correspondent.—I am, &c.

Analectes;
Also One who holds a Double Qualification.

Seacombe, April 18, 1856.

OPERATION FOR STRABISMUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—As the value of an operation must be judged of by its results, I am anxious to direct the attention of the Profession to a method of operating for strabismus which has given me more favourable results than I have yet seen obtained by any other means. In my work on strabismus, published two years ago, I pointed out the advantages of dividing the faulty muscle sub-conjunctivally; but I was not then in possession of an instrument which could be depended on for effecting completely the section of the muscle, nor had I adopted the method of making the aperture in the conjunctiva above, instead of below, the rectus. After making trial of a variety of instruments on the dead subject, I found nothing accomplish the purpose so effectually as a knife with a cutting edge, perfectly straight, its extremity rounded and blunt, and the blade inclined to the handle at an angle of about 160° (a).

By having its extremity probe-pointed, all necessity for introducing a director is done away with, while it answers the double purpose of a blunt hook for securing the muscle, and a knife for dividing it. The advantage of opening the conjunctiva from above, instead of from below, consists in the aperture being entirely covered by the upper lid, so that no cicatrix is afterwards visible, nor is there any other evidence of an operation having been performed, save and except the rectification of the deformity. I shall be happy to submit to such of my Professional brethren as may feel interested in the subject, any of my patients who have been operated on by the method advocated in this paper. I am, &c.

C. Holthouse.

2, Storey's-gate, St. James's-park, April, 1856.

PERINEAL RUPTURE IN PRIMIPARÆ.

[To the Editor of the Medical Times and Gazette.]

Sir,—Dr. Snow Beck's communication on the frequeney of perineal rupture in primiparæ has a certain value for the Profession, which will no doubt elicit from its members any experience they may have upon the subject. I have long been of the opinion, that laceration to a greater extent than is generally supposed does take place in first births, and indeed, at the outset of my obstretric practice, I suffered much uneasiness, and indulged in gloomy forebodings on this account. I, however, learned by experience that such lacerations as do not destroy the sphincter action of the anus, heal kindly, and produce no subsequent ill effects. Practically, too, I think the ocular proof of the existence of such laceration by no means necessary; all that is needful to know ought to be known immediately after the extrusion of the child, and without any exposure whatever,—I mean the condition of the sphincter.

I by no means wish to underrate the benefit which Dr. Beck's paper is likely to confer upon the Profession; indeed I think it quite a boon to a young and anxious Practitioner; but except as a matter of professional curiosity I can see no good result that further investigation in the same direction can bring about. Accepting, therefore, the experience of Dr. Beck as the probable experience of every equally careful observer, and ignoring the idea that he has suffered a martyr-

(a) The knife was manufactured by Mr. Matthews, of Portugal-street, nearly two years ago; since then others have been made by him, and by Mr. Weiss of the Strand, rather more probe-pointed.

dom of ruptured perinæum, I think the nett result will be as follows—

1. That rupture of the perinæum in first births happens with more frequency, and to a greater extent, than is generally supposed.

2. That such lacerations, when the sphincter remains intact, as a general rule, and with few exceptions, heal kindly and rapidly.

3. That Nature will work a satisfactory eure, while Surgieal interference will prove useless if not injurious.

Lastly, both patient and nurse being generally ignorant of the matter, it is highly desirable they should remain so; and it will not much hinder the patient's progress if her Medieal attendant be in the same benighted condition. I am, &c.

E. W. Sullivan, M.D., M.R.C.S.L., &e.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, April 8, 1856.

Dr. Webster, Viee-President, in the Chair.

ANALYSIS OF CASES OF AMPUTATION OF THE LIMBS, IN THE RADCLIFFE INFIRMARY, OXFORD.

By EDWARD LAW HUSSEY, Esq., F.R.C.S.
One of the Surgeons to the Infirmary.

The capital operations in the Radcliffe Infirmary are recorded in a register kept for the purpose, the entries being made from notes taken at the time of the operation. In this register and in the admission-books are noted 164 cases of amputation from all causes, which are arranged in the paper in separate tables. Among the cases of disease, 91 were for diseases of joints; 55 of these were in the thigh, of which 10 were fatal; 6 died from the immediate effects of the operation, and 4 did not reeover sufficiently to be sent home. The mortality varied in the praetice of the different Surgeons. Of 20 cases in the leg, only 1 died; of 6 cases in the upper arm, and 10 in the forearm, all recovered. Among those who recovered from the operation, 17 never permanently regained their former health; 3 died from accidental illness; in 1 the cause of death was not ascertained; 16 others died with phthisis, at various periods after the operation; the subsequent history of 5 was not known; the rest are all now in good health. The mortality was not affected by the duration of the disease, or the extent of disorganization of the joint. The proportion of men who undergo amputation in early stages of disease is greater than that of women; in later stages the proportion of women is greatest. The operations for diseased joints in boys and girls under puberty are not successful; a larger proportion than in adults die from the effects of the operation, or do not recover their health after amputation. In 5 cases of malignant diseases, 2 died after operation; in 1 the disease returned within a year; the other 2 are living. In other diseases, neerosis, caries, gangrene, elephantiasis, old ulcerations, and inconvenient limbs, all the patients recovered. Of 6 cases of primary amputation of the thigh, only 1 recovered, and in that case the injuries were confined to the leg, below the knee. In all the fatal eases, the operation was performed after very severe injury. All the operations on the leg (12 in number) succeeded. Of 15 on the upper arm, 3 died; and of 14 on the forearm, 1 died. Among the secondary operations, only 1 died, after amputation at the shoulder-joint for a burn. The operations were mostly done by circular incision. The chief veins of the limb were tied whenever they bled, without any bad consequences. The stumps were generally tied at the time of the operation. In several cases, where the stump was left open after the operation, there was secondary hæmorrhage, and in all of them union was very slow. The healing of the wound, or the discharge of the patient, was retarded by so many accidental eauses, that it was not easy to make a fair estimate of the time oecupied in the recovery. The forearm generally healed rather sooner than the upper arm, and the upper arm rather sooner than the leg, the thigh being much the latest. After amputation for diseased joints, the stumps healed sooner than in other diseases. The greatest delay was after primary operations for accidents.

Mr. Erichsen asked how it was that the rate of mortality varied so greatly in the practice of different surgeons in the Radcliffe Infirmary; whether the variation was accidental, or due to the adoption of different methods of treatment. The paper appeared to indicate that (as, indeed, might be expeeted) amputations and excisions for disease were on the whole more successful in the country than in London. Skill, he believed, had little to do with success in such cases. In the country the surgeon had not to deal with persons who were broken down by debility as in London, and he could plaee his patients in far better hygienic cireumstances. The mortality at the Radcliffe Hospital did not appear to arise from pyæmia, secondary abscesses, and the like, which so frequently occasioned death in London. The mortality, however, in eases of primary amputation of the thigh, appeared to be as great there as elsewhere. This was perhaps the most fatal operation in surgery. In many institutions not one patient in ten had recovered. Such a result would almost lead one to adopt the plan of the French surgeons, who had given up the operation entirely. He believed that not a single case had proved suceessful either in the French or British camp.

Mr. Hussey said, the six deaths after amputation of the thigh resulted from pyæmia. He had no doubt that operations were more suceessful in the country than in London, the eonstitutions of the patients being better. In London he never saw a wound after amputation heal by the first intention. In the case of reeovery after primary amputation of the thigh, the thigh-bone was not injured. When the bone was injured he had never known a patient to reeover. He should be glad to know the result in London of operations for diseased joints in children. His own impression was, that amputation for diseased joints was never required before puberty. Sueh cases, he found, recovered in the country; and if they did not, amputation, he believed, would be of no service.

Dr. Barker said, he knew two officers who had reeovered after primary amputation of the thigh; and, he believed, without a bad symptom.

Mr. Paget mentioned two recent suceessful operations for gun-shot wounds: one by Mr. Hewett, at St. Gcorge's Hospital, where there was an extensive fracture of the lower part of the femur; and the other by himself, at St. Bartholomew's, where the gun-shot went through the condyles of the femur. In both cases, he said, recovery was perfect.

Mr. Curling thought Mr. Erichsen had taken a more gloomy view of the operation than facts warranted. He had seen many eases recover.

Mr. Erichsen said, he had in view 12 cases at Edinburgh, all of which died: 10 in the Royal Infirmary, Glasgow, and the same number in St. Thomas's Hospital, not one of whieh recovered. In the Hospital with which he was conneeted, nearly half the eases had been saved; so that as to personal experience he did not take so gloomy a view as was supposed; he simply referred to the statistics which had been published.

Mr. Arnott said that, in regard to the operation in question, the experience of the Peninsula was similar to that of the Crimean eampaign—that it should not be attempted except in eases of absolute necessity. A question had been asked as to the propriety of operations before puberty. That would depend upon the kind of cases. The cases for which joints were extirpated were not so accurately distinguished as they ought to be. He believed, when the disease originated in the synovial membrane or the eartilage, the patient would recover, but if it originated in the strueture of the bone the chance of suecess was but slight.

Mr. Henry Lee said, he had lately removed the arm of a boy for diseased elbow-joint, and he afterwards found the radius and ulna infiltrated for two inches with puriform matter. He had had two eases in London in which, after operation, union by first intention took place. One case was that of the boy just mentioned; and the other was after primary amputation of the thigh for extensive ulceration of the muscles. In the latter case the femur was not injured.

Mr. Coulson asked whether the cases of death from pyæmia mentioned by the author were cases of accident or disease, and, if the amputations were for disease, how far above the seat of disease the limbs were removed—an important element that ought to be taken into consideration. He had seen cases of pyæmia oecurring where amputation was performed near the diseased joint.

Mr. Hussey said, some were cases of accident, and some of disease. In all the six cases great hæmorrhage took place.

Mr. Athol Johnson referred to some cases of the removal of the ankle-joint in children, and stated that in all of them the subsequent examination of the part showed that the mere removal of the articular extremities of the bone would not have sufficed.

Mr. Curling said, it appeared from a table, published some years ago, of cases at the London Hospital, that in eleven cases of primary amputation of the thigh, there were seven deaths, and four recoveries.

Mr. Ure alluded to the supervention of osteo-myelitis after amputation of the thigh, and said he had observed it in one or two cases.

MEDICAL SOCIETY OF LONDON.

Saturday, April 12, 1856.

Dr. Chowne, President, in the Chair.

Dr. Winn read a paper on

PARTIAL RETROVERSION OF THE UTERUS FOLLOWED BY SUDDEN AND PROTRACTED ANÆMIA.

The author stated, that on the 18th of February last, Mr. Eagle requested him to see in consultation a tall, spare, and middle-aged woman, who had been seized two days previously, while suddenly rising from her chair, with inability of passing urine, accompanied by vomiting, a bloodless countenance, faltering pulse, and such symptoms as usually attend extensive internal hæmorrhage. She was the mother of two children, and had aborted twice. There was reason to suppose that she was three months' pregnant at the time of the attack, although a slight sanguineous discharge from the womb had appeared two months previously. Mr. Eagle had drawn off, at the very outset of the disease, and with little difficulty, a moderate quantity of urine. He had also been obliged to perform catheterism twice daily since the attack. On making an examination, Dr. Winn found the body of the uterus enlarged and partially and obliquely retroverted, the fundus being inclined towards the right side. The cervix uteri pressed, but not strongly, against the neck of the bladder. It appeared that she had never rallied thoroughly since the attack, and when Dr. Winn first saw her she was in an alarming state of exhaustion. As the symptoms were much more severe than those which generally supervene in mere retroversion of the uterus, he was inclined to suspect the rupture of some internal bloodvessel, although no physical signs of such a lesion were present. The sudden and intensely blanched state of the countenance was very remarkable, as the patient's lips had always presented a ruddy appearance previous to the attack. Opium, in frequent and large doses, was ordered, with a view of allaying the sickness; a turpentine injection to relieve constipation and tympany, and brandy in iced milk, to support the strength, were also prescribed. On the 19th the symptoms continued much the same; a very slight discharge of blood from the uterus, however, had taken place in the course of the previous twenty-four hours. On the 20th she passed urine naturally for the first time, and the symptoms had improved, with the exception of the anæmic condition, which remained the same. There had been no recurrence of the uterine discharge. On the 22nd she passed, without hæmorrhage, a small portion of a tough, thick membrane, about two inches square, apparently a portion of diseased decidua. After the occurrence she gradually recovered, although nothing in the shape of an ovum was discharged from the womb. Dr. Winn considered the rapid accession of anæmia in this case a remarkable phenomenon. It was possible, he thought, that the sympathetic nervous excitement might have caused a change in the chemical action which is supposed to produce the colouring matter in the blood corpuscles. If the poison of malaria could affect the colouring properties of the blood globules, it was not unreasonable to suppose that nervous force was capable of producing similar changes.

Dr. Snow thought that some hæmorrhage might have taken place unobserved. He had seen cases in which hæmorrhage into the bowels had taken place, producing great pallor and weakness, the cause being unknown till the blood was detected in the evacuations.

Mr. I. B. Brown concurred in the opinion of Dr. Snow, adding that perhaps the blood had not yet escaped.

Mr. I. B. Brown mentioned the result of a case that he brought before the Society about a twelvemonth ago, in which he had injected tincture of iodine for ovarian dropsy. Sixteen or eighteen pints of fluid were removed, and, as he then stated, the patient left the hospital in tolerable health, about a quarter of the fluid having re-secreted. The tumour, however, had not since increased in size, and the woman was enabled to resume her employment of charwoman, being in the enjoyment of good health. He had since been investigating the treatment, and was convinced that, under certain conditions, it would prove very efficacious in cases of ovarian dropsy.

Dr. Hassall read a paper on

THE ADULTERATION OF LIQUORICE,

this being the first of a series of Reports on the Adulteration of Drugs and Pharmaceutical Preparations. Of twenty-one samples of roll, of foreign extract of liquorice analysed, every one was found to be adulterated, the substances employed for the purpose of adulteration being various kinds of starch or flour, as those of rice, wheat, barley, rye, and potato, and cane sugar, gum, and chalk. Genuine extract of liquorice dissolves without leaving any residue; those of the adulterated liquorices weighed, when deprived of moisture, from 18 to 42 per cent. Of the pipe liquorices, commonly called refined liquorice, all were likewise adulterated, and this generally to a greater extent than the roll liquorices. They furnished insoluble residues, consisting, for the most part, of different kinds of starch, varying from 34 to 41 grains per cent.; they usually contained cane sugar, and the pipes were generally enclosed in a tube of gelatine of the coarsest description, but little superior to common glue. The Pontefract lozenges examined furnished equally large residues, and they contained cane sugar. To such an extent is the adulteration of pipe liquorice carried, that it often contains not more liquorice than is sufficient to flavour the article. Of twenty-eight samples of powdered liquorice subjected to examination, at least eleven were adulterated as follow:—One consisted chiefly of wheat flour; one contained a large quantity of flour; two, much foreign woody fibre; two, woody fibre and turmeric; another, woody fibre and wheat flour; one was made up chiefly of Indian corn, potato, and sago flours, and turmeric; another of sago, woody fibre, and much turmeric; another of damaged East India arrowroot and a little turmeric; and another consisted almost entirely of potato flour, a little wheat flour, and turmeric. The last preparation of liquorice examined was the extract of the "Pharmacopœia." In order to insure a genuine article, a form is prescribed for the preparation of this extract. Of ten samples, six were found to be adulterated, and to consist merely of the foreign extract melted down. Fourteen of the foreign roll liquorices, as well as several of the liquorices sold as the Pharmacopœial extract, contained copper, derived from the vessels in which the extract was prepared. It thus appears that liquorice—an article, by the way, which bears a high duty—is adulterated to an enormous extent. At the conclusion of his paper, Dr. Hassall produced a variety of samples of adulterated drugs, as jalap, ipecacuanha, rhubarb, turmeric, squills, colocynth, compound scammony powder, etc. A large number of diagrams were also exhibited to the Society, illustrating, on a large scale, the application of the microscope to the subject of adulteration.

Dr. Gibb mentioned that liquorice was sometimes adulterated with French yellow, which was detected by adding hydrochloric acid, effervescence being thus produced.

Dr. Lankester said there could be no question that drugs were adulterated to an enormous extent, and it was a serious question how the evil could best be remedied. With regard to liquorice, he was a little comforted to think that it was not adulterated with anything that was likely to produce serious effects upon the system. Liquorice was extensively cultivated near Pontefract, though the "Pontefract cakes," manufactured in the neighbourhood, were made of Spanish and Italian juices. He considered that persons who sold food or medicine should be subject to occasional inspection, and be fined whenever they were detected selling adulterated goods. The College of Physicians had the power, under a statute of

Mary, of entering druggists' shops and examining their goods; but he was not aware that that power was duly exercised.

Mr. Hunt mentioned, that the Apothecaries' Company also had power, under the Act of 1815, to examine the drugs of all Apothecaries in the United Kingdom. The Metropolitan Act, which gave to the Medical Officers a supervision over articles unfit for food that were offered for sale, ought, he considered, to have included drugs. Few medical men, he believed, were aware of the extent to which drugs were adulterated.

Dr. Webster stated, that the College of Physicians exercised the power vested in them, (which extended only to the city,) and that he had himself been one of the censors.

Mr. Rogers Harrison expressed an opinion that the Medical Society was not a fit arena for the discussion of the composition and adulteration of liquorice. As to other drugs, their adulteration by such substances as starch, potatoes, and the like, was, perhaps, rather a matter of rejoicing than otherwise, as it might serve to diminish the strength of the doses prescribed. (A laugh.)

Mr. J. F. Clarke vindicated Dr. Hassall's choice of the Medical Society as a medium for bringing the subject before the notice of the Profession and the public; referring to the interest it had uniformly manifested in questions relating to the public health, and the part it had taken in exposing practices injurious thereto.

Dr. Rogers adverted to the difficulty connected with the prescribing of drugs whose strength was uncertain.

Mr. Jabez Hogg said, he had seen sulphate of lime and rice starch mixed with powdered liquorice. Some drugs, he said, were so extensively adulterated, that persons who ought to be competent judges were ignorant as to the composition of the real article. In one instance a quantity of calamine ointment was returned to this country from India, as not genuine, the fact being, that it was a perfectly genuine article, but differing so much from what had been previously supplied, (the drug being nearly always adulterated,) it was supposed to be impure.

The President stated, that he had known ipecacuanha to be sold with one part in three of sago dust; and said that the person who was considered the best druggist was he who could adulterate the best without detection, and could best detect the adulteration of others.

Dr. Snow wished that the author had included some other drugs in his paper. He mentioned that the censors of the College of Physicians once found in their visitations a barrel of antimonial wine so adulterated, that they had it turned out into the street. The excuse of the druggist was, that it was "only intended for exportation."

Mr. I. B. Brown said, until a better system was introduced, Medical men would necessarily go on prescribing with uncertain results.

Dr. Kidd mentioned, that the College of Physicians of Dublin had the same power as the London College, and it was exercised over the whole city.

Dr. Hassall, in reply, stated that he had been led to select liquorice as the subject of his first communication mainly for two reasons: first, because it was an article very largely consumed; and secondly, because it furnished an illustration of a system of adulteration which extended to a variety of other more important drugs and pharmaceutical preparations. In his next Report, it was his intention to describe the adulterations to which certain of the more important medicines are subjected.

The Society then adjourned.

HARVEIAN SOCIETY.

February 20, 1856.

Dr. Ramsbotham, President, in the Chair.

Dr. Sieveking read a case of abdominal cancer, which presented various points of interest both in reference to diagnosis and to the pathology of cancerous disease. He was consulted in the month of October, 1854, on the case of a gentleman whose history and symptoms were briefly these. He was single, aged 65, corpulent, and had enjoyed good health till within fifteen months, when he was attended by Mr. Ray on account of an attack of bronchitis and an ulcer on the left leg. Since that time the left leg had been constantly œdematous. There had been no pain or redness, but the œdema persisted in spite of all remedies. One Surgeon who saw him suggested that it might be owing to the pressure exerted by a truss which was worn for a hernia, but the removal of the truss exercised no influence upon the œdema. The appetite failed; but though the tongue was foul there was no sickness or vomiting. Dr. Sieveking found him slightly icteric, complaining of extreme debility, with much pain at the sacrum, especially in lying down; the œdema was considerable, affecting the whole leg and involving the left buttock. There was no tumour discoverable in the abdomen, the heart acted normally, the liver appeared small, no renal disease was traceable. Dr. Sieveking diagnosed at the time the presence of a malignant growth involving the iliac vessels of the left side, and extending across the sacrum. The treatment consisted in rest, tonics, occasional laxatives, and, later on, narcotics. Great improvement took place with regard to the digestive powers, the complexion, and the œdema; so much so, that when, as the general powers did not improve, a further opinion was obtained from Dr. Burrows, in the middle of November, there appeared to be no grounds for assuming the presence of any local affection, and the patient's condition was set down as solely one of anæmia. The prostration gradually increased, and death ensued in January, 1856. The post mortem revealed a large malignant mass involving the inguinal and lumbar glands, spreading over the sacrum and enclosing the abdominal aorta and vena cava, which at one point were much constricted; the mass extended along the spinal column to above the pancreas. The growth consisted of fibrous tissue arranged in a looped network, enclosing a soft medullary mass; the latter gave out a white creamy juice, which, like the substance itself, consisted of granular, well formed corpuscles of an uniform oval shape and sharp outline, without nuclei; there were no compound cells or any cells resembling those ordinarily found in medullary cancer. There were copious exudation corpuscles. The left kidney was thoroughly disorganized; the cortical texture was replaced by a white growth, exhibiting under the microscope all the appearances of cancer, viz., every variety of nucleated cell-growth. The heart presented great fatty degeneration of the muscular fibre, and between the fibre was imbedded much granular and corpuscular matter, which under the circumstances was regarded as cancerous. The other organs were healthy. Dr. Sieveking showed drawings of the morbid growth in the various parts, and drew attention to the different features presented in the primary growth and in the secondary disease affecting the left kidney.

Mr. Borham read a paper

ON THE PATHOLOGY OF APOPLEXY, MORE ESPECIALLY IN CONNEXION WITH PREGNANCY,

in which he remarked upon the complex nature of the subject in tracing the actual character of the morbid change which induces apoplexy. The Author divided his subject into two classes, the *Morbid* and *Accidental*. The morbid class was considered under three elements:—1st. The state of the blood; 2nd. The condition of the vessels; and 3rd. The diseased state of the structures surrounding those vessels. The accidental class comprised two heads:—1st. A shock, or accident; 2nd. Mechanical pressure. In passing in review the above five elements, the Author illustrated them by cases drawn from his own experience, or other trustworthy authority. "The state of the blood" he considered a feature of the greatest importance; it was the germ that generated and brought into existence the morbid state of the vessels, and the structures surrounding them. It played that inscrutable law ever observant in Nature, that of giving and taking with the same hand. Especial attention was drawn to albuminuria. The Author considered albumen to be a great *cohesive element* in the blood, and, therefore, by its loss, the bond of union between the constituents of this fluid he considered to be destroyed, and effusion would consequently ensue. Albuminuria evidently gave a hæmorrhagic tendency to the system, as was shown by the immense post-partum flooding which constantly occurred to those suffering from this disease. He also illustrated this by the case of a female, who, suffering from albuminuria, died of apoplexy while pregnant, four ounces of blood being found extravasated within the brain. He also traced its pathological connexion (by cases) with congestion, convulsions, effusion, and death. He showed the tendency to apoplexy by spirit-drinking, in diluting the blood,

and facilitating cerebral effusion, and also touched upon that state of the blood mentioned by Messrs. Andral and Gavarrall, who seem to think that an essential connexion exists between cerebral hæmorrhage, and a diminution in the amount of fibrin in the blood, with an increase in the blood-globules. "The condition of the vessels" was illustrated by cases of aneurism, atheroma, tuberculous deposits, arteritis, pulpy softening, ossification, etc; states which rendered the arteries extremely liable to rupture, from the force of the ordinary blood-current. "The diseased state of the structures surrounding the vessels" embodied ramollissement, œdema of the brain, tubercles, gangrene, cancer, etc., morbid states which facilitated the solution of integrity in the coats of the arteries, incurring in them a loss of tone and texture, from the constant contact and maceration they are liable to undergo, and thus hæmorrhage might suddenly ensue. The *Accidental* class was represented by cases where a sudden blow or fall produced rupture and extravasation of the cerebral vessels; and where tumours, natural or morbid, produced the same from mechanical pressure.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

February 7, 1856.

Dr. Williams in the Chair.

(Communicated by the Hon. Secretary.)

Dr. Wyatt mentioned that Dr. Nicholis (principal Medical Officer to the Sardinian Army) intended coming to our last meeting, and giving his experience of the cholera as it appeared in the Sardinian Army in the Crimea. Dr. Nicholis then presented a copy of his report on cholera to the Society, for which the thanks of the Society were given to him.

Dr. De Chaumont (Rifle Brigade) then read a paper on

FEVER COMPLICATED WITH THORACIC AFFECTIONS,

and illustrated it with several interesting cases. He observed that, in nearly all the cases that had come under his notice this winter, thoracic symptoms were more or less developed, and proved the most formidable opponents to the recovery of the patients; the majority of fever patients last winter and spring at Scutari having either bronchitis or pneumonia, while, in summer, thoracic symptoms were very rare—derangements of the liver, intestinal disorders, and nervous symptoms being then the most prominent. Thoracic affections have increased since the troops have been hutted. With regard to the circumstances favourable to the manifestation of thoracic affections, it might give rise to the question, as to whether tents or huts are most conducive to the health of the troops, or whether we are to prefer diarrhœa and dysentery to bronchitis and pneumonia.

Dr. Williams inquired the result of any observations with reference to the hutting of the troops.

Dr. Blenkins said that bronchitic affections have been more numerous this year, but they were of a mild character. In his own experience there has been a greater complication with fever; but the cases were generally mild and amenable to treatment. Bronchitic affections were numerous. However the situation of the regiment may account for the severity of Dr. De Chaumont's cases: at home such cases were prevalent; here he generally found abdominal complications. At present anomalous pains in the loins were very numerous. He has not detected pneumonic sounds in any of his fever cases.

Dr. De Chaumont stated that the Rifle Brigade was situated on a high and exposed position on Cathcart's Hill. The regiment is hutted. When the fever has continued for some time, the pneumonia is of an asthenic character; expectoration very slight, but rusty, and sometimes streaked with blood. In some cases there was no expectoration, although all the other signs of pneumonia were present. At Scutari, it was only those who had been there some time that were affected with pneumonia. Two Medical officers had died there of pneumonia.

Dr. Robinson, last winter, had four cases of pneumonia: all were admitted with fever; all recovered. He had also noticed the great absence of chest-affections last winter.

Dr. Menzies said they had no fever in the Highland Division at Camara, and scarcely any bronchial affections while at Scutari. The men arrived there greatly emaciated, and were then housed and fed to an extraordinary degree. He considered that many cases of diarrhœa died from overfeeding. The reaction produced fever, congestion of the lungs, etc., and at the same time the disease of the bowels continued. He agreed with Dr. De Chaumont that mercury is the best remedy, and it is also useful when combined with quinine and camphor.

Dr. Hume confirmed Dr. De Chaumont's statement, that the Rifle Brigade had more chest-affections than any other regiment in the Fourth Division; it might arise from their quick movements. It was always the weakest point that first suffered. He had no faith in calomel, and preferred tonics. He did not like quinine by itself, but preferred it combined with other tonics.

Dr. Williams considered that, to the practised eye, there are symptoms that are quite apparent. He considered antimony, with tonics, invaluable in such cases. Quinine was a powerful sedative.

Dr. Hume said he should have included antimony among his remedies.

Dr. Robinson said there were generally two forms of pneumonia; one simple, and the other complicated with fever; the one being a disease *sui generis*, the other contingent on the progress of the previous malady, fever.

Dr. De Chaumont said we should not confound the local pyrexia with the general fever. In the cases he had brought forward, the pneumonia was consequent to the fever.

Dr. Wyatt had seen a great deal of pneumonia complicated with fever. Had seen wine used solely in such cases in Ireland, and agreed with Dr. Hume that there is no disease without fever. He had seen such complications, but the disease is often very insidious. The best plan he had seen in Ireland was supporting the strength by stimulants. In the Sardinian Army the fever is complicated with pulmonic affections.

Dr. Robinson mentioned that in spring the diseases required early stimulants. Considered stimulants at a very early period also necessary in the form of fever—a bad typhoid—then prevalent.

Dr. Calder stated that he had several cases of pulmonic affections, both idiopathic, and also after fever. That it was of vital importance in thoracic affections to know whether they preceded or followed cases of fever, as they then required a very different treatment. The disease was severe in the second division, often affected both lungs, principally the upper lobes. He concurs in the efficacy of calomel, and does not doubt its absorbent powers.

Mr. Rodgers had noticed the frequency of thoracic complications with fever of late, and it made all the difference whether the pneumonia was idiopathic or combined with fever. However, it forms but a very small item in our diseases out here. He has not seen maculæ in fever here, nor had he met with the typhoid form. Considered calomel scarcely applicable in this complicated case.

Dr. Williams had found quinine in combination, according to circumstances, useful in both forms of fever.

Dr. Wyatt said we should draw the distinction between the two forms of pneumonia.

Dr. de Chaumont had seen some maculæ, but very few cases of the typhus form. He considered the type of the disease different from that in Ireland; here the affections are very complicated, and have a tendency to severe inflammatory action; and he thought that stimulants should be given very cautiously.

Mr. Thornton mentioned that ulcerations of the cœcum were prevalent there, and that they were present in a fatal case of phthisis, although the patient had never complained of any abdominal symptoms.

Dr. Shelton confirmed the existence of fever complicated with pneumonia, and mentioned a case in his own practice. The disease was in the upper lobe, as proved by the stethoscope; the patient had hæmorrhagic discharges from his bowels; typhus fever set in, and the patient died. The post-mortem examination showed general congestion of the lungs, and also large ulcerations of the cœcum. He thought there might be a connexion between the lungs and the intestines, without any marked symptoms, or fever. And in a second case the upper

lobe was hepatized, and no rusty sputa appeared until twelve hours before death.

Mr. Herbert stated that in the Spring, while with the 14th Regiment, the fever cases had no pulmonic complications—the men were in tents; while in the 18th Regiment, to which he was also attached for a short time, the fever was complicated with chest affection, and they were in huts.

Dr. Meadows said that in the 9th Regiment we had only two cases of fever complicated with pneumonia; both recovered, the calomel treatment being very effective; and Dr. Ross, of the Pathological Board, mentioned that he had always found pneumonia affecting the upper lobes of the lungs in the Crimea.

Dr. Calder had noticed that these complications had only lately appeared in the Crimea.

Dr. Hume considered that all the cases take their origin from ague.

Dr. Nicholis (Sardinian Army) said that in the Sardinian Army they did not observe so many cases of inflammation of the chest, in comparison with other complications, the genius of which was asthenic, like cholera and intermittent fever. Intermittent fever, and gastro-nervous fever, were very numerous, and went on to complicate all other complaints. He could say, as had been observed, that diseases in the Crimea presented a different aspect from those he commonly saw in his own country (Piedmont). He observed, that complication was followed by a depression of strength and spirits, which oppose the employment of contra-stimulant measures, as bleeding, leeches, etc. All those remedies proved unsuccessful, and were noxious, notwithstanding that our men could support those therapeutical agents well. Intermittent fever, simulating gastro-nervous fever, which existed much, was now dying away, and this fever was cured perfectly by sulphate of quinine, a remedy which we know is very useful in the diseases in which feebleness and nervous affections prevail, and when they appear in a periodical form.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by your inserting in your Journal the following letter, copies of which I have sent to the Medical Officer of every Union House, excepting those who have already joined our Association, with a request that they may be transmitted to each District Medical Officer. To the Local Secretaries of Unions and other Medical Officers on my list I have forwarded copies to be distributed to their respective colleagues; no valid excuse can, therefore, now be made, that the objects of our movement are unexplained to any Union Medical Officer in England and Wales; and, through the medium of your columns, it shall be equally well known to the Profession at large. I am, &c.

Richard Griffin.

POOR-LAW MEDICAL REFORM ASSOCIATION.

Dear Sir,—I addressed a letter to one Medical Officer in each Union in England and Wales on the 7th of January, and another on the 15th March, inviting co-operation in the Poor-Law Medical Reform movement which has been agitating the Profession for some months past. The Officers of one hundred and sixty-three Unions, representing upwards of eight hundred men, have responded, and desire to petition Parliament to redress their grievances. To render this appeal certain of success, it only requires that a larger number of the Union Surgeons should join the Association. I therefore again earnestly entreat you to call your colleagues together, that the remark may not be verified, that you are "listlessly looking on, content to reap what others have sown." I would also invite the support of those Poor-Law Surgeons who are governed by local incorporations, as the time is not far distant when they will be under the same thraldom as ourselves, a Bill being now before Parliament to repeal the Gilbert Acts.

The Journals, for weeks past, have recorded the meetings of various Unions, and editorial articles have frequently appeared advocating our cause. Officers of a few Unions, particularly the Bedford, having but slight cause of complaint, feel it a duty they owe their less fortunate brethren to assist them at this juncture; and even Medical men having no connexion with Unions, have most disinterestedly contributed to our cause:—W. Turner, Esq., Kensington, £5; F. J. Brown, Esq., M.D., Chatham, £1 1s.; William Smith, Esq., M.D., Weymouth, £1 1s.; Robert Thornton, Esq., 9th Regiment, Crimea, £1 1s. Such noble conduct demands that all apathy should be at once and for ever laid aside, and that you should, without further delay, join the Association. As it is possible my former notes may have been mislaid, I will venture, at the risk of appearing prolix, to repeat some of the leading points. Mr. Cane, of the Poor-law Board, in his evidence before the House of Commons, says:—

(No. 166.) "Taking the whole kingdom together, without intending to be precisely accurate, my impression is, that the payment per case to a Medical Officer would not average more than 3s. For this sum we have to find drugs, which, according to No. 3269, cost in Dispensaries 2s. 1½d., and in Hospitals 4s. 4½d. per head, or a mean of more than our average payment of 3s. throughout the kingdom. In addition, we have a great variety of expenses,—horses and carriages to purchase and keep, servants, tolls, and taxes to pay, expensive instruments to provide, with no end of bodily fatigue and anxiety of mind."

The Committee of the House of Commons has admitted the hardships we endure by recommending, in 1854—

1. That the Medical appointments should be permanent.
2. That the salaries should be revised and increased.
3. That the districts should be examined.

The Poor-law Commissioners have themselves acknowledged the injustice of our payment, by their recommendation for the relief of permanent poor, that "the Medical Officers should receive 6s. or 6s. 6d. per case in the rural districts, and the remuneration per case for those not on the pauper list may reasonably be on a somewhat higher scale; but the Board are inclined to think that it will not be found necessary to exceed 10s. per case." This recommendation, though made in 1839, and repeated in 1841, has not been acted on; it has been left to the Guardians, to carry out, or not, as they pleased; and the result is too well known.

On the 26th ult. Mr. Bouverie, President of the Poor-law Board, stated, in reply to Mr. Pigott, "that in regard to the Medical districts and salaries of the Medical officers, these were matters not immediately under the control of the Poor-law Board, they being settled in the first instance by the Guardians." Therefore to apply further to that Board is vain. To the Guardians we have repeatedly complained, and have seldom received redress. As a last resource we must appeal to the House of Commons for justice, which, I feel confident, will not be denied to the firm and temperate prayer of three thousand Professional men, if they will but unite and petition. Uniformity of payment throughout the kingdom is absolutely necessary—at present it is most unequal—as we have it in evidence (No. 3269), that "the rate of payment varied from 3d. to 14s. 4d. for each case of sickness." In the Weymouth Union, it is now from 1s. 2¼d. to 14s., the districts being equally distant from the Surgeon's residence.

I have carefully collated the opinions of the officers from one hundred and sixty-three Unions, and find that the majority are for—

1. Petitioning Parliament to order the Poor-law Board to put in force the recommendation of the Committee of the House of Commons, obtained by Mr. Pigott, in 1854.

2. That a uniform scale of payment shall be adopted throughout the entire kingdom, varying only in proportion to the number of the poor, and their distance from the Surgeon's residence, and even this to be arranged on a fixed basis, with no optional power on the part of the Guardians.

3. That the scale of extras, including midwifery, should be extended, and embrace many operations and bad cases in surgery not now paid for, a list of which will be drawn up by the Committee; that the Officer in charge of the Union House shall participate in this arrangement; and that there shall be no discretionary power to give a fixed salary instead of extras.

4. That all Medical appointments, not only now in force, but hereafter to be made, shall be declared permanent, and subject only to a re-adjustment of the districts, from time to time, as the Poor-Law Board may think desirable.

5. That a fixed salary being preferred to a per-case payment, even though the former be founded on the latter, the calculation shall henceforth be made on the average number of orders for the last three years, at a sum not less

than five shillings per case, with two shillings extra for each mile the patient resides beyond the Medical Officer's house.

6. That a revision of salaries take place triennially, if desired by the Board of Guardians or Medical Officers.

7. That no order shall continue in force longer than three months, and if renewed, be counted as a fresh order.

Personally, I should prefer a removal from the Poor-Law Board and Guardians, and being placed under a Medical department of the Board of Health, with other changes; but I must candidly admit, that the opinions of a great many are against this course altogether, and others object to it, as involving the risk of postponing the melioration of our present position for an indefinite length of time. To ensure unanimity of action, I therefore think it right to recommend you to confine your resolutions to the opinions I now place before you. Let me once more entreat the Officers in each Union, who have not already met, to do so without delay,—appoint a Local Secretary, collect Subscriptions, as expenses must be incurred, (5s. per quarter has hitherto been generally subscribed) and forward them to me with their opinions, and we shall speedily be in a position to lay our grievances before Parliament.

Allow me to remind those who think I ought to have called a public meeting ere this, that, a month since, I had only 70 Unions on my list. I now have 163,—a convincing proof that the cause has not suffered from delay, but is advancing with giant strides; even in the Crimea our appeal has been heard, and a warrior brother has sent home his subscription to support the cause; and I only wish he had given me authority to print his letter, it offers so many powerful arguments for the necessity of union among ourselves, and the claim we have to the support of the Profession at large, "as the good or injury of one is in various ways felt by all." The Officers of a Union, seven in number, have written to say "They will attend a London meeting, but think it rather early for one to be called, and trust the cause will not be damaged by *precipitancy*; an advanced movement should be well supported." I am, Dear Sir, faithfully yours,

RICHARD GRIFFIN.

12, Royal-terrace, Weymouth, April 21, 1856.

P.S.—Before you call a meeting, be good enough to forward one of the circulars to each of your colleagues, and should any be unable to attend, request them to inform me if they will join the movement. I would willingly do this myself, and spare you the trouble, but I am unacquainted with the names and residences of the Medical Officers, as no list has been printed since 1853. Subscriptions, for 5s. and under, may be sent in stamps, the expense of the postage of these letters being first deducted; or I will transmit the amount if desired,—but under no circumstances omit to send them. Those gentlemen that have already joined need not answer this circular.

I shall be glad to be informed if you will attend a London meeting, should one be convened.

BRENTFORD.—At a meeting of the Medical Officers of the Brentford Union, held in New Brentford on the 17th day of April, (Dr. Mackinlay in the chair) the following resolutions were proposed, and carried. Mr. Davis, of Old Brentford, was requested to act as Local Secretary. 1. That this meeting having been convened in consequence of an appeal made by Mr. Griffin, of Weymouth, the Medical Officers of the Brentford Union do pledge themselves to co-operate with Mr. Griffin in his laudable endeavours to improve the position of Union Surgeons. 2. Though the Guardians of the Brentford Union have shown a disposition to improve the condition of their Medical Officers, this meeting must express its opinion of the inadequate amount of remuneration, considering the nature and extent of the duties required of Union Surgeons generally. 3. That among the various suggestions promulgated for the improvement of Poor Law Medical appointments, this meeting declines giving an opinion; with a confident hope that Parliament and the Country must listen to the just and united appeals of those who have the sanitary charge of the poorer portion of the population of this nation. 4. That in the event of a general meeting a deputation will attend from this Union. 5. That a subscription of 5s. per quarter be entered into to assist in defraying the expenses. 6. That a vote of thanks be given to Mr. Griffin for his great exertions. 7. That a copy of the above resolutions be forwarded to Mr. Griffin and the Medical Journals. 8. And that the thanks of the meeting are due to Dr. Mackinlay for his kindness in taking the chair.

WANDSWORTH AND CLAPHAM.—A meeting of the entire Medical Staff of the Wandsworth and Clapham Union was held on the 18th of April, 1856. There were present—Dr. Connor, Battersea; Mr. M'Donagh, Clapham; Mr. G. E. Nicholas, Wandsworth; Mr. Walter Chapman, Tooting; Mr. F. Ward, Balham; Mr. Alexander Brown, Streatham; and Mr. R. H. Whiteman, Putney. Mr. Whiteman, who was called to the chair, addressed his colleagues upon the importance of the present movement, and warmly urged his brethren to support Mr. Griffin in his praiseworthy endeavours to meliorate their condition. The Chairman's views were ably seconded by Dr. Connor, Mr. Nicholas, Mr. Chapman, and other gentlemen present. The following Resolutions were then submitted, and unanimously agreed to:—1. That the Medical Officers of this Union, without pledging themselves to details, fully concur in the movement inaugurated by Mr. Griffin, and hereby tender their best thanks to that gentleman for the zeal, ability, and moderation he has manifested in his endeavours to obtain a recognition of the claims of the Union Surgeons in respect to their emoluments and position. 2. That this meeting views the question involved in the present movement as one resting not so much between the Union Surgeons and Boards of Guardians to decide, as between the Poor-Law Board and the Legislature. 3. That while the Medical Officers of this Union express their satisfaction at the gentlemanly and considerate treatment they at all times experience from the Board of Guardians under which they act, they are not unmindful of the general and most just complaint of the inadequate amount of remuneration received in most cases for the laborious and onerous services rendered; and since in but few instances is the increase of population, and the consequent increase of sickness among the poor sufficiently recognized as a basis for a proportionate and periodical increase of emolument, this meeting cordially supports the movement of Mr. Griffin, if it be only to effect an abrogation of that system of compulsory charity to which almost all Union Surgeons are now obliged to submit. 4. That G. E. Nicholas, Esq., be appointed Honorary Treasurer and Secretary, and that he be requested to forward copies of the above Resolutions to the Medical Journals, and to Mr. Griffin, together with the subscriptions collected.—(Signed) On behalf of the meeting, R. HARLAND WHITEMAN, Chairman.

TENTERDEN.—At a meeting of the Poor-Law Medical Officers held at Tenterden it was resolved:—1. That this meeting tenders its best thanks to Mr. Griffin for his exertions in behalf of the Poor-Law Medical Officers, and pledges itself to co-operate with him in his endeavours to improve their position. 2. That this meeting considers that the salaries of the Medical Officers ought to be made remunerative for the duties performed; that all operations should be paid for extra; that the minimum fee for midwifery should be £1; and that the Medical Officer of the Union House should be entitled to the same fees for operations performed in the House. 3. That a subscription be entered into for expenses incurred, and that Mr. Newington be requested to forward the same, with a copy of these Resolutions, to Mr. Griffin.—JESSE H. NEWINGTON.

SHAFTESBURY.—At a meeting of the Medical Officers of the Shaftesbury and Mere Unions, held at Shaftesbury on the 10th instant; present, Messrs. Miles, Buckland, E. J. Miles, Barrett, Brine, and Chitty, it was resolved:—1. That the Medical Officers of the above Union, cordially approve of the movement set on foot by Mr. Griffin, of Weymouth, and promise him their co-operation and support. 2. That in the opinion of this meeting, a fairer and more equitable mode of remunerating them for their services would be at so much per case; and they contend that Article 177 of the Consolidated Order should embrace all Surgical cases, to be paid for in proportion to their severity. 3. That the Medical Officers of these Unions form themselves into a Local Association, and that 5s. per quarter from each member be forwarded to Mr. Griffin for the furtherance of the objects in view. 4. That Mr. Brine be appointed Local Treasurer and Secretary, and requested to forward a copy of these Resolutions to Mr. Griffin and the Medical Journals.—J. E. BRINE, Honorary Secretary.

HEALTH OF THE ARMY IN THE CRIMEA.

The principal Medical Officer serving with the Army in the Crimea, in forwarding his Return of Sick for the week ended March 22, states that

Notwithstanding the recent arrivals of several drafts of recruits, and the cold winds which have prevailed from the N. and N.E. during the whole of the past week, the increase of admissions into Hospital has only been a small fraction higher than it was last week, and the mortality has fallen nearly one-third.

Even in the Land Transport Corps the health of the men has been more satisfactory; and, although there has been no decrease in the number of admissions during the week, the mortality has fallen more than one-half.

Taking the whole force in the Crimea, including Land Transport Corps, Army Works Corps, and Medical Staff Corps, the admissions to strength have been only in the ratio of 2·41 per cent.; deaths to strength, 0·02; and sick to well, 4·41. Last week they were, respectively, 2·15, 0·04, 4·29.

Of the 16 deaths which occurred in the whole force serving in the Crimea, 7 took place in the Land Transport alone; and out of the 16, 3, I am sorry to observe, were from the direct effects of drunkenness; and in how many other cases that vice may have been the exciting cause of the disease it is impossible to say.

But, with all those defects and drawbacks, the health of the Army, according to the ratios given above, may be fairly said to be in a very satisfactory state; and a mortality of 16 out of a force of 56,000 cannot be considered large.

The troops stationed at Kertch are equally healthy, and no casualty had occurred there during the week ending March 14, which is the latest date up to which I have received Returns from the Senior Medical Officer there.

The Cavalry Division in the Bosphorus is also very healthy, and only two deaths had occurred in it during the week ending March 14.

Taking the Sick of the whole force in Turkey, both in General and Regimental Hospitals, the ratio of deaths to strength has only been 0·03 per cent., and the ratio of sick to well 6·09 per cent.

Assumed Strength	70042
Number of Deaths	25
Number of Sick under treatment . .	4267

PARLIAMENTARY INTELLIGENCE.

HOUSE OF COMMONS—Monday, April 21.

In answer to a question from Mr. Bailey,

Mr. F. Peel referred to the rule that had been laid down as to those who were, and those who were not, entitled to the Crimean clasp, and said the only exception that had been made to the latter was in favour of the Medical Officers, upon the ground that those officers were obliged, in the performance of their duty, to go under fire.

Sir J. Pakington asked whether a distinction had been drawn between the commissariat officers who had served at the siege of Sebastopol and those who had served elsewhere in the Crimea, and had returned to England.

Mr. F. Peel could only say, that no more clasps could be granted. Several officers, it was true, had received clasps contrary to the rule laid down; but, of course, they would not be required to return them. (Ironical cheers.)

In Committee of supply, on the vote of £18,626 for the General Board of Health,

Dr. Michell objected to the salaries paid to the President, Medical Officer, and Secretary of this Board,—an expensive, odious, and mischievous Board, that had carried disease into every town in England. He proposed to remove the reduction of the vote to £6266, the amount that had been already expended.

Mr. Williams complained of the excessive salary of the Medical Officer of the Board, which was no less than £1500.

Sir B. Hall defended the salary of Mr. Simon, as not excessive. Mr. Simon had been a Medical Officer to the City of London, with a salary of £800, and his private practice was £400 when he was appointed; and, therefore, £1500 a-year was not excessive.

Mr. Miles thought that, in that case, £1200 would be a sufficient salary for Mr. Simon.

Mr. Mowbray contrasted the salary of the Medical Officer with the salaries of high judicial and executive public functionaries, and contended that it was excessively high.

Mr. Blackburn said, the salaries in the department were generally on an exceedingly high scale; they had five clerks in it, and four superior officers to look after them, with salaries amounting to £5000 a-year.

Mr. Barrow considered the Board of Health a greater nuisance than any of the nuisances it was intended to abate. What was the use of a Medical Officer to the Board of Health?

After a few words from Sir B. Hall,

Captain Bellew said that the information given as to this vote was so unsatisfactory that he should propose its postponement.

Mr. Wilson described the duties of the Medical Officer as considerable and arduous, and £1500 a-year, he contended, was not too high a salary for a gentleman so eminent in his Profession as Mr. Simon, and who had been in the receipt of an income of £1200 a-year when his services were sought by the Government.

Mr. Bowyer stated that Mr. Simon was acquiring great distinction in the Medical Profession when he received his present appointment, and as he received it upon the understanding that he should discontinue the practice of his Profession, the committee would easily perceive that his salary ought not to be reduced.

Sir H. Willoughby contended that all the salaries included in this vote were extravagant.

Mr. W. S. Fitzgerald mentioned that Dr. Barker, after having been secretary to the Board of Health in Ireland retired at the age of 84, and, upon applying at the Treasury for a superannuation allowance, was informed that, inasmuch as he had not by annual reductions of his salary contributed to the superannuation fund, no retiring allowance whatever could be made to him. How unfair that conduct of the Treasury appeared when contrasted with their grant of a superannuation allowance of £300 a-year to Dr. Southwood Smith, after a service of merely five years in the English Board of Health, without his having paid a farthing towards the superannuation fund.

The amendment of Dr. Michell having been negatived without a division,

Mr. W. Miles moved the reduction of the vote by £300., with the view of reducing the salary of the Medical Inspector to that extent.

The committee divided.

For the reduction 63—Against, 154—Majority, 91.

The vote was then agreed to.

MEDICAL DEPARTMENT—ARMY.

Mr. Stafford nominated the following members as the Select Committee:—Mr. Stafford, Mr. Bellew, Colonel Boldero, Sir James Fergusson, Sir Henry Davie, Sir John Hanmer, Colonel Kingscote, Mr. Leveson Gower, Captain Laffan, Mr. Legh, Mr. Noel, Colonel North, Mr. Peel, Mr. Perey, and Sir John Trollope.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 17, 1856:—

Cockcroft, Midgley, Hebden Bridge, near Halifax.
Hunt, George Dawson, Preston, Lancashire.
Nicholson, Mark Edwin Bullin, Cambridge.
Wood, Robert H., Woodhouse Eaves, Leicestershire.

DEATHS.

Brander.—April 12, at Clifton, Dr. J. M. Brander, of the Bengal Medical Service, aged 61.

Collins.—April 15, at Leyton, Essex, Robert Collins, Esq., aged 67.

APPOINTMENT.

WARNEFORD HOSPITAL, LEAMINGTON. — Mr. James Edward Male has been elected one of the Surgeons to this Hospital, in the room of Mr. Middleton, resigned.

Dr. J. HULLETT BROWNE and Dr. THUDICHUM have been appointed Visiting Physicians to the St. Pancras Royal General Dispensary.

UNIVERSITY AND KING'S COLLEGE, ABERDEEN.—The Degree of M.D. was conferred on the following gentlemen, after Examination, April 18:—

BARKER, EDMUND, Staffordshire.
BOWHILL, JOHN, Bengal.
BRADY, PATRICK, Bradford.
BREMNER, JAMES, Huntly.
COLLINSON, ALFRED, London.
CORRY, THOMAS, Belfast.
DOW, ROBERT, Holensforth.
GOLDSBRO' THOMAS, Montgomeryshire.
HURDLESTON, JOHN, Holloway.
LEACK, RICHARD, Blackburn.
MILLAR, GEORGE, London.
NATRASS, CHARLES, Sunderland.
ROWLAND, HUGH, Shropshire.
RUGG, GEORGE, Leamington.
SCANLAN, JAMES, Glasgow.
WHITAKER, JOHN, Lincoln.
YEOMAN, JOHN, Whitby.

IT is with regret we mention that several cases of typhus fever have arrived at Malta from the Crimea. The Superintendent of Ports, Captain Graves, R.N., has made every preparation to meet so formidable a foe. A fever hospital was immediately formed, in which about forty beds were made up at the Lazzaretto. Arrangements were also made for the removal and separation of the patients from the passengers of the ships, so as not to infringe upon the Quarantine laws.

IN the United States Senate a resolution, permitting Dr. Kane and his associates in the Arctic expedition to accept whatever token of appreciation the Government of Great Britain might bestow upon them, was discussed at some length, and finally laid over ! !

SCUTARI, &c., HOSPITALS.—A return to an order of the House of Commons has been published of all official reports of the hospitals at Scutari, Kululee, Abydos, and Smyrna, in the months from February to May, 1855. This return contains letters from Lord William Paulet, Drs. Sutherland and Gavin, and Mr. Rawlinson, to Lord Panmure, and correspondence between Dr. Cumming, Dr. Smith, and Lord W. Paulet. These communications relate principally to the state of the buildings, and contain observations on the defective condition of the arrangements, and on the method of interring the dead.

MILITARY HOSPITALS IN FRANCE.—The building of a vast military hospital has been commenced in the wood of Vincennes; it is situated between the donjon of the old fort and the turret of St. Maude. The new avenue from St. Maude to Vincennes is to pass before the hospital. The Convalescent Hospital for Workmen, near Charenton, is half finished, and it is expected that it will be nearly, if not quite, terminated by the end of the summer. It will accommodate from 1000 to 1200 patients. It is in brick and stone, and is to be surrounded by extensive gardens, which have been marked out.

BURGESS *v.* EVANS.—WELLS COUNTY COURT.—This was an action to recover £14 18s., for Surgical and Medical attendance. The plaintiff resides at Glastonbury, and the defendant is a farmer, residing in that neighbourhood. For the plaintiff, Mr. Sheppard, solicitor of Wells; for the defendant, Mr. Eldin, barrister, of Bristol, and Mr. Hobbs, solicitor, of Wells. It will be remembered that about twelve months since the defendant was sued in this court for the above named sum, when the case was adjourned for the production of additional testimony. At the next court the plaintiff did not attend, and the defendant brought an action against him, which was tried before a special jury at the last Assizes, to recover damages for improper Surgical treatment, whereby Mr. Evans had become lame for life. The jury, however, after a lengthened hearing, were of opinion that the case had met with proper treatment, and gave a verdict for the present plaintiff, who now again sought to recover from defendant the amount to which he thought himself justly entitled. The plaintiff being called, stated that he had served his apprenticeship to his father, who was a Surgeon and Apothecary; that afterwards he went to London, and attended the Hospitals there, for which he received certificates, and those he produced; that he had done all that was at that time considered necessary to enable a person to practise as Surgeon, and that he had so practised ever since May, 1815, and had before the present occasion attended the defendant. Mr. Edlin objected to the paper produced being put in as evidence, unless there were witnesses in court that could testify as to the signatures. The plaintiff stated that the signatures were put in his presence. Mr. Edlin again objected. He said, if the bill had been for medicine, the plaintiff might have recovered; but, as it was for Surgical attendance, the case would rest upon the simple question as to whether he was a member of the College of Surgeons; and read an extract from an Act of Parliament, passed in the reign of Henry VIII., which stated that persons could not practise in the country as Surgeons without having been examined and approved by the Bishop of the diocese. He also stated, that no case on the point had been decided by the Superior Courts; but he cited a case, tried in another County Court some time since, bearing strongly on the present one, where judgment was given against the person so practising.—Mr. Sheppard said, the Act of Henry VIII., quoted by Mr. Edlin, had become obsolete; that by an Act of Geo. II., the Surgeons had been incorporated, and formed into a Company, and by that Act such persons as were examined and approved, pursuant to the rules of that Company, were entitled to practise Surgery throughout the kingdom; that Mr. Burgess had been examined, and that the Royal College of Surgeons, as now constituted, was not in existence when Mr. Burgess received his certificate.—Mr. Burgess said, he was not aware, when he was in London, that he had anything more to do to enable him to practise than to obtain the certificates produced, and that while he was there many persons had been so admitted.—Mr. Edlin said, the document produced was nothing more than what all students were obliged to produce before they were admitted members of the College. He hoped his Honour, for the sake of protecting society, would give the case due consideration, as the question might affect the lives of the public; but he did not wish to cast any slur against the skill of the plaintiff, who, he believed, was a very respectable man.—His Honour said, he was of opinion that there was a general prohibition against parties practising, whether in town or country, unless they were members of the College of Surgeons; and, as the plaintiff was not a member, he did not think him entitled to recover.—The plaintiff was accordingly non-suited.

HANWELL AND COLNEY HATCH LUNATIC ASYLUMS.—At a meeting of the Middlesex Magistrates, on Thursday, the following Resolutions were passed:—"That the Committee of Hanwell Asylum be authorised to raise a sum of £70,000, for the additions of which the plans were laid before the Court in the report of the Committee of visitors for the year 1855." "That a sum not exceeding £50,000 be granted to the Colney Hatch Lunatic Asylum Committee, for the purpose of enlarging the building for the accommodation of 638 patients, and that the amount be raised by mortgage of the county rates; also that the Visiting Justices of the House of Correction at Westminster be authorised to expend a sum not exceeding £11,000 in increasing the accommodation, and in providing a new Infirmary for the Female Prisoners."

INDIA.—The *Calcutta Englishman*, of March 8, says:—"Dr. Mouat's duties have been increased considerably, Government having placed the prisons of Assam and the Tenasserim provinces under his superintendence. In due time there can now be little doubt but we shall have a proper system of discipline and management throughout Bengal and its dependencies. Dr. Mouat goes on a tour of inspection by the Hugh Lindsay, which vessel leaves on the 10th instant." The *Bombay Times* of March 19 states, that Mr. Riddell, Director-General of Post-offices in India, being about to proceed on leave, to Europe, Dr. Paton, Postmaster-General of the North-Western provinces, takes his place, while Dr. Clark, of the Royal Service, becomes his temporary successor. Dr. Fayrer having distinguished himself in the performance of his Professional duties in Burmah, is appointed Postmaster-General for Oude; and Dr. Impey has his zeal and activity while Residency Surgeon at Indare, rewarded—first, by the Medical Storekeepership and a Professorship; and before he has been

a twelvemonth at work in those departments, both to him new, is made acting Postmaster-General of Western India."

THE SARDINIAN HOSPITAL at Constantinople has been destroyed by fire.

THE VIENNA HOSPITALS.—The General Hospital at Vienna was founded by Joseph II. for 2000 patients, and there have been admitted from 1784 to 1855 inclusively 1,024,372 persons, of which number 154,786 (15 per cent.) have died. The admissions of men have exceeded those of women by 13 per cent, while the mortality of the latter has been greater than that of the former by 2·7 per cent. The average number of patients is 1737. The whole is subject to a Director, the treatment of the patients devolving on 10 primary and 5 ordinary Physicians, together with 14 secondary Physicians and 29 *internes*. The Hospital at Wieden in the environs has received during 10 years 47,742 persons, who have furnished a mortality of 16 per cent. The Vienna *Medic. Wochenschrift* states, that Hospital accommodation is entirely inadequate for the increased population, has been painfully proved during the recent epidemic of typhus. The Midwifery Institution has received during 71 years 234,650 patients with a mortality of 2·2 per cent. There have been 224,440 children born living with a mortality of 5·9 per cent. In the Foundling Hospital the 293,544 infants admitted have furnished a mortality of 77 per cent. The Lunatic Asylum, adjoining the General Hospital, has received during the 17 years 17,742 patients (9292 male and 8450 female) with a mortality of 27 per cent.

COURT OF PASSAGE.—A HINT FOR "QUACK" DOCTORS. —HOLMES *v.* STARTUP.—The plaintiff in this action (which we briefly alluded to in our last,) was Benjamin Pollard Holmes, a coloured seafaring man, and the defendant was William Startup, of the late firm of "Startup and Brown." The action was brought to recover damages for injury which the plaintiff had sustained by reason of alleged unskilful treatment on the part of the defendant. Last year, the plaintiff, in returning from the Mauritius, caught a severe cold, which gave him a pain in the hips. When he arrived in Liverpool, he saw a very striking sign in the neighbourhood of St. George's Hall, and while he was reading it a boy put a bill into his hand which contained a description of his disorder, and directed the sufferer to "Mr. Startup's, 125, Park-lane." After this he entered the defendant's booth, where he saw a servant of the defendant, named Pugh. This man put on a solemn face, and asked the plaintiff if he had taken mercury, but he replied that he had never required to take mercury since 1840. A document was given to the plaintiff, by which the defendant pledged himself to cure the plaintiff of "Syphilitic rheumatism" for the sum of £1 10s , the money to be returned if the cure was not effected. Upon this the plaintiff paid a guinea, received some pills and ointment, with the orders respecting which he complied; but instead of being cured he became a great deal worse. He then waited upon the defendant Startup, who referred him to Pugh, saying, "He'll do for you: I don't keep dogs and bark myself." Still growing worse, the plaintiff again applied to Startup, who galvanised him, but without any beneficial effect. He was then compelled to apply to Dr. Hutchinson, of Parliament-street, who found him in a very dangerous state. The plaintiff was permanently injured, and it was for such injury that he now sought compensation. Dr. Hutchinson said he saw the plaintiff on February 6, and found him in great pain. He was severely salivated—indeed, he had never seen a worse case. His head and jaws were swollen; the inside of his mouth was mortifying, and the poor fellow could not raise his head from the pillow. He would never have the perfect use of his jaw again. There was no disease upon the man which required the administration of mercury in the ordinary way of treatment, but on examination of the box of ointment which Startup had given him, he found it to be mercury. The learned Assessor, in directing the jury, gave the following curious dictum :—The simple question for them to consider was whether the defendant had exhibited, which he was bound to do when he undertook to cure every person, due skill as well as proper care, whenever he had been employed for the purpose, and took upon himself the duty of endeavouring to treat the disease. There was a man who did not venture to get into the witness-box himself and tell them what he was—whether he was a regular Practitioner or not, and if not a regular Practitioner regularly educated, whether he was a person possessing the seal which was generally given by the various Societies throughout the country. If he were not so he was bound, perhaps even more so than a regular Practitioner, to show that he used that skill which was to be expected from a person when he undertook to cure disease. The jury returned a verdict for the plaintiff, damages £30.

MORTALITY NOTABILIA.—The rate of mortality declines as the temperature rises with the beginning of the Spring months. The deaths in London, which had been in the two previous weeks 1284 and 1115 respectively, fell last week to 1043. In the corresponding weeks of ten previous years 1846-55 the average number was 1051. The same rate of mortality in the present increased population would produce 1156 ; and a comparison of the real with the estimated result shows a difference in favour of last week to the extent of 113. 238 boys and girls died without completing their first year ; at the other extreme of life 35 men and women died who were 80 years old and upwards. Typhus is more fatal at present than any other disease in the epidemic elsss. It numbers 56 cases in the week. Eleven deaths occurred in the London Fever Hospital, all, except two, stated to be from that disease. Four seamen have died of typhus since the 9th instant in the Dreadnought Hospital Ship.

BIRTHS.—The births of 923 boys and 964 girls, 1887 children, were registered ; average 1519.

METEOROLOGY.—The mean height of the barometer in the week was 29·856 in. The highest reading was 30·13 in. which occurred on Saturday. The mean temperature of the air in the week was 46°, which is 0·1° below the average of the same week in 38 years (as determined by Mr. Glaisher). The *highest* reading of the thermometer in the week was 65° on Sunday (the 13th), and on that day the mean was 52·9°, or 7·4° above the average. The temperature then declined, and after Tuesday the mean was below or not higher than the average. The *lowest* in the week was 32° on Thursday. The mean dew-point temperature was 37·2°, and the difference between that and the mean temperature of the air was 8·8°. The highest temperature of the water of the Thames was 53·5°, the lowest was 48·3° ; the mean of the week was 50·8°. Wind north-east, and north or east. Rain 0·17 in. Horizontal movement of air, 750 miles ; electricity, weak positive.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, April* 19, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, April 19, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. ° 46·0						° 46·8
ALL CAUSES	1043	528	143	166	171	35	1050·7
SPECIFIED CAUSES	1043	528	143	166	171	35	1039·7
DISEASES:—							
1. Zymotic Class	224	159	23	23	19	..	214·4
2. Dropsy, Cancer, and others of uncertain seat	41	4	4	15	17	1	47·3
3. Tubercular Class	214	90	73	39	12	..	198·1
4. Of Brain, Nerves, etc. ..	134	71	12	18	28	5	120·3
5. Of Heart, etc.	34	3	4	9	16	2	38·9
6. Of Respiratory Organs ..	203	112	6	39	35	11	189·9
7. Of Digestive Organs ..	47	14	9	8	16	..	62·8
8. Of Kidneys, etc.	10	1	2	3	4	..	12·0
9. Of Uterus; viz. — Puerperal Disease, etc. ..	12	1	7	1	3	..	8·7
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	6	2	1	1	1	1	7·8
11. Of Skin, etc.	4	1	..	2	1	..	1·4
12. Malformations	7	7	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	23	23	..	..	..	..	28·9
14. Atrophy	27	24	..	1	2	..	23·9
15. Age	32	..	..	..	17	15	47·8
16. Sudden	2	1	1	..	..	..	7·9
17. Violence, Privation, etc...	23	15	1	7	..	..	26·2
CAUSES NOT SPECIFIED.. ..	..	..	..	..	..	..	11·0

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

The term *General Natural History* has been chosen to denote the subject of this Course rather by reason of its convenience than upon any grounds of strict philosophical propriety. Natural history, in fact, embraces the mineral world as well as those living beings of which alone I shall have to speak, and whose phenomena constitute the subject-matter of that great branch of natural history rightly termed *Biology*. The latter term, however, is not only foreign to English ears in its proper acceptation, but has been the subject of such thorough perversion and misuse that its adoption would have been inconvenient, not to say unwise; and, therefore, I have chosen as its nearest equivalent, "General Natural History," signifying thereby the science which investigates the laws of vitality; which expounds the relations of living beings to one another and to the surrounding universe of not-living matter.

This is a very vast subject, and I need hardly tell you, that the space of this short course of lectures is far too limited to allow of any but the most general treatment of it; the more so, because, from the unfortunately total absence of any elementary biological instruction as a part of common education, I am necessitated to begin from the very beginning. For the like reason, we shall find the study of animal life alone requiring more than all the time and attention we can give to it, although that of the plant is properly as much included within the scope of Biology. Any regret at this necessarily exclusive devotion to a moiety of general natural history is however lessened by the consideration, that the phenomena of animal life are the wider and more varied of the two; and that, to one who has mastered the laws of animal biology, the life of the plant can present only difficulties of detail, not of principle.

The mode of treatment of the subject of animal biology, or the general natural history of animals which I shall adopt, will be the more readily intelligible to you, if you bear in mind that the real object of the studies of the scientific naturalist is very different from what you may have been led to suppose. Natural history is a good deal more than a nomenclature; and the man who can, without hesitation, give you the technical names of every dried plant and stuffed beast you set before him, is, on that account, no more a naturalist than the savage, who has a distinct name for every brook and hillock in his country, is a geographer. Science is necessarily based on the most extensive, minute, and accurate knowledge of details; but such knowledge is not science. It is the condensation of masses of details into general propositions — the so-called "laws" — which is the object of the philosopher; it is in enunciating and explaining these laws that a teacher can mainly help you; for, by so doing, he furnishes you with a clue to the mazes of organization, and gives you an interest in, and a reason for remembering the seemingly most trivial minutiæ; but, on the other hand, that practical familiarity with these details, which can alone give to what you thus learn the value of real knowledge, cannot be taught in the lecture-room, but must result from your own private labour.

Remembering, then, that the doctrines and not the details, of general natural history are what we have to deal with here, the question arises, What are these doctrines? Living beings present themselves to us under two aspects—1. As performing certain actions, which are called *functions;* 2. As presenting certain *forms;* and biology is correspondingly divided into two great branches—*Physiology* and *Morphology* each of which deals with one of these aspects of life.

Physiology, again,—the science of the laws of action of living beings, breaks up into various subordinate divisions:—Physiology proper, which investigates their physico-chemical acts; pyschology, their mental acts; distribution, which regards them in relation to external conditions. Morphology, the science of form and structure, on the other hand, divides into histology, or the doctrine of minute structure, between which and anatomy, the doctrine of gross structure and form, there is no natural line of demarcation; and morphology proper, or philosophical anatomy, which considers the relations of forms to one another.

The great subject of *Development*, finally, which deals with the successive changes of form presented by living beings, is a branch of physiology, so far as it regards the causes of these changes,—is morphological so far as it simply observes and relates them.

So much for the nature of our subject, and the limitations which surround us. Keeping these considerations in view, the plan I propose to pursue is the following:—The first (a) half-dozen lectures will be devoted to the great facts of physiology; and I must particularly enforce upon your attention, that a thorough comprehension of these facts is of essential importance to your further progress. Without physiology, a scientific knowledge of natural history is impossible. After these physiological prolegomena, I shall pass on to the consideration of the structure of the animal kingdom. Taking my stand upon morphology, but engrafting as many physiological considerations as possible, I shall endeavour to lay before you, in successive lectures, the structure of the great types of animal life, bearing in mind, in the selection of my illustrations, the special tendency of your studies towards palæontology; so that, whenever fossil forms either present peculiar difficulties or exhibit better illustrations of a type than existing species, we shall devote particular attention to them. But, on the other hand, if you find me dwelling at length upon some type which has no fossil representative, you must not suppose that, even as palæontologists and geologists, your time is wasted. A narrow and exclusive study of fossil forms of life has been, and is, the bane of geologists, and a most fertile source of error in their speculations. To the palæontologist, the great value of having once comprehensively studied natural history lies in the fact, that thenceforward it is impossible for him to forget that, in the remains which have been preserved in the earth's crust, he sees only a fractional part of a great whole; and that in palæontology, as in physical geology, no theorizing upon the conditions of past ages which is not based upon a clear and comprehensive knowledge of the present is worth the least serious attention.

As a necessary commencement to our preliminary physiological studies, we cannot do better than enter upon the consideration of the question, How do these *living beings* differ from the other forms of matter,—from those with which the physicist and the chemicist deal?

Linnæus said, stones grow; plants grow and live; animals grow, live, and feel. But, like many other definitions, this itself wants defining; and, until we know what is the meaning of "live," we are not much further towards the understanding of the difference between a stone and a living being than we were before. What, then, is the signification of life? How do living beings differ from all others?

There is one great and principal difference between living matter and that which does not live, and there are a number of minor differences. The great differential character consists in the tendency of all living beings to pass through a cyclical succession of changes of form and composition. While the members of the not living world, on the other hand, tend to retain and to remain in the condition in which they are at any moment.

I put this to you in this hard, condensed, abstract form, that you may take note of it, and bear it carefully in mind; but I will now explain more fully, by citing a concrete case or two, the precise nature of the ideas I wish to convey.

If I put a bit of flint into a glass of water, and expose the whole to the air, the flint will remain unchanged, both in form and chemical composition, for any conceivable time.

If, again, I take a small morsel of that substance which forms the basis of animal flesh, and is called protein, from a dead animal, and put it into the water, the result will be, after a time, a process of putrefaction; the protein will decompose and disappear, and, eventually, nothing will remain to show that the protein has been there.

The stone, therefore, undergoes no change; while the dead protein undergoes a series of changes, but these all terminate

(a) I would remark, once for all, that these Lectures are identical in *substance* only with those delivered at the Government School of Mines.—T. H. H.

in its own extinction—it neither increases nor reproduces itself, but gradually diminishes and disappears.

Now, all not living bodies exhibit one or other of these peculiarities, either they lie at rest or they tend to a condition of rest. If, however, we take a protococcus—an elementary plant, which is little else than a particle of protein, only living—and place it in the same conditions, what takes place? It undergoes constant change, indeed; but, instead of decomposing and disappearing, it adds to its substance—enlarges, modifies its form, and then gives rise to a new being like itself. Thus you see, while the dead protein undergoes a series of changes in one direction, as it were, always going further and further from its original starting point, the living protein, on the other hand, returns, at least partially, to its original starting point.

What is true of the protococcus is true for all living beings whatsoever. Whether it be a man or an oak, a polyp or an alga, the changes exhibited by living matter are always of this definite cyclical character—and this is the most general difference I can give you between the living and the not-living world.

The other differences between the living and the not-living, though very important, are subordinate in their character to those just mentioned. They lie (*a.*) in the nature of the forms assumed; (*b.*) in minute structure; (*c.*) in peculiarities of chemical composition; and (*d.*) in mode of increase.

(*a.*) It is a singular circumstance, that, so far as we know, there is no living being whose form is geometrically regular like that of a crystal; nor is there any known living form, whether plant or animal, whose faces are plane faces. The former are always more or less irregular; the faces are curved faces. On the other hand, the possession of curved faces by crystals appears to be a phenomenon of almost equal rarity. Carbon, in the shape of the diamond, is a well-known instance; but it is not the only one, as is often supposed, some forms of spathic iron and of dolomite presenting the same exceptional peculiarity.

(*b.*) A section of a crystal presents no visible structure to the unassisted eye; and, however high the power of the microscope applied, it remains still entirely homogeneous. If, however, a like section of almost any living being be examined in the same way, it will be found to possess a very regular and definite minute structure; and if a very young part of a living being be examined, this structure will be found to be essentially the same in the great majority of cases, whether we select for investigation an animal or a plant. The section, in fact, will present a homogeneous basis or "periplast;" through which peculiar rounded, solid, or vesicular particles of tolerably even size, which possess the power of multiplying by division—the "endoplasts," are scattered.

It is particularly to be remembered, however, that this law of minute structure is not of universal application, and that in many of the lowest forms of both animals and plants, and in some of the higher, no such regular structure or minute organisation has yet been demonstrated. Minute structure, therefore, is a product of vitality, not its necessary condition.

(*c.*) In the not-living world we meet with every variety of chemical composition, from the simple element to the most complex and varied atomic arrangements. Among living beings, on the other hand, a singular uniformity is observable. No living being ever contains fewer than three elements(b); and the probability is, that every actually living part contains the four elementary bodies—carbon, hydrogen, oxygen, and nitrogen, in proportions nearly similar to those which characterise the more or less hypothetical substance called protein.

We have no evidence at present, that independent vital actions can be performed by any substance free from nitrogen, or containing fewer than these four elements. As to how much more chemically complex living bodies may be, we have no certain evidence; but, in all probability, this "viable" matter, which we may call "protein," (at any rate, provisionally,) is remarkably capable of forming such composite combinations, especially with inorganic salts.

(*d.*) Crystals and other mineral bodies grow, but it is by accretion or apposition of particles to their exterior; the inner substance of the crystal once formed, remaining unchanged. On the other hand, every particle of a living being is, as I have already said, in a constant state of change—of growth and waste. Hence living beings grow, not by accretion, but by intussusception into their substance. If you will, their growth takes place by accretion to each molecule of their mass—not to the surface of the mass as a whole.

These are, I believe, the principal and most characteristic differences between the members of the not-living world and living things. Can we find any, equally broad and decided, between the great subdivisions of living nature? between the animal and plant, for instance, and, again, between the different kinds of animals and plants?

With regard to the former question, the characters ordinarily given as distinctive between animals and plants entirely fail.

In both animals and plants we have every reason to believe that the essential living substance, the "viable matter," is one and the same quaternary nitrogenous compound—the cellulose skeleton of the plant and the large quantity of other ternary compounds which it produces, being no more the primary essential living parts of its organism, than are the fats and salts of lime, which enter in corresponding preponderance into the vertebrate body, the primary and essential agents in its vital processes. The chemical composition of the tissues, therefore, affords no ground of distinction between the animal and the plant, more especially now that we know that substances such as sugar, starch, and cellulose, once supposed to be the peculiar products of vegetable chemistry, are abundantly, and some even constantly, generated by animals.

In like manner, contractility and the power of locomotion, once supposed to be confined to the animal world, have recently been shown to be almost universally possessed by the cryptogamic plants, to say nothing of the well-known phenomena of irritability presented by the phanerogamia, while, again, the existence of a stomach, whether permanent or transitory, characteristic of animals so far as it goes, gives us no absolute diagnostic, now that we are acquainted with the Gregarinæ.

The only character which appears to me to offer something like an absolute distinction is one the ascertainment of which in practice is unfortunately attended with great difficulty. It is derived, not from the chemical composition of, but from the nature of the chemical forces brought into play by, any living creature. There is great reason to believe that all plants can and do combine ammonia, water and carbonic acid, into protein, carbohydrates, and hydrocarbons (usually with the evolution of oxygen, though this should not be taken, as it frequently is, for the essential part of the process).

It is very doubtful, I think, if the parasitic plants and the fungi will be found to present any real exceptions to this rule; while, on the other hand, there is no good evidence that an animal has such powers, animals appearing to be dependent, either directly or indirectly, upon the vegetable world for their supply of protein, and generating their carbohydrates or hydrocarbons by a decomposition of this protein (c).

While, however, there is great difficulty in forming a definition which shall include all animals and exclude all plants, or *vice versâ*, there is usually little (except in the case of undeveloped germs) in practically distinguishing between the two, the analogy of allied forms guiding us very safely. It is difficult, for instance, to understand how any one practically acquainted with the protozoa can have any hesitation about arranging the sponges among them; and, so far as

(b) I regret to find myself here in direct opposition to an eminent writer whose assertions will, by many, be regarded as authoritative. I quote these assertions *verbatim*, therefore, in order that the tyro in organic chemistry may judge for himself as to the value of the authority in this matter, and that I may be held excused for not gravely taking such statements into consideration:—

"As regards the conversion of the surrounding elements into their own matter, animals combine carbon, hydrogen, oxygen, and nitrogen to form the proximate principles of most of their tissues, which are thus 'quaternary' compounds; whilst the tissues of plants are in general 'ternary' compounds of carbon, hydrogen, and oxygen; and sometimes, as *e. g.*, the *cellulose substance*, only '*binary' ones, of carbon and hydrogen.*"—Owen: Lectures on Comp. Anat. and Phys. of Invertebrata. 2nd edition, 1855. P. 4.

"Tissues of *binary* compounds are found in polygastria and *ascidiæ*; and *the chitinous coverings of insects and crustaceans have a much closer resemblance to ligneous fibre than to* proper animal tissues."—*Ibid.* p. 7.

"And, on the other hand, *nitrogen combines with carbon and hydrogen* to constitute the chief tissues of the sponges, algæ, and fungi. These exhale carbonic acid like well-organised animals, and the polygastria exhale oxygen like typical plants."—*Ibid.* p. 7.

"On the other hand, it has been shown by Schmidt, that some animal tissues are *binary* compounds, as, *e. g.*, the *mantle of the Frustulæ* and the *thick cellular tunic of the ascidiæ*."—*Ibid.* p. 5.

(c) See the late luminous researches of Bernard (Annales des Sciences Naturelles, 1856,) on the production of sugar in the liver.

I am aware, no botanist conversant with the lower plants hesitates in claiming the Desmidiæ and Diatomaceæ for the vegetable kingdom; nor does any duly instructed zoologist dispute that claim.

But without at present laying any very great either theoretical or practical weight upon a definition, we may say, broadly, that animals are those living beings which have no power of forming protein (*i. e.*, the nitrogenous viable substance, whatever it be) from ammonia, carbonic acid, and water; while plants have that power; that plants possess neither a temporary nor a permanent stomach, while animals very generally possess one.

Now, among the different kinds of animals, whether we regard them physiologically or morphologically, we observe enormous differences, and yet, withal, a certain common ground of union. What is the source of these differences, what the reason of this pervading unity?

With respect to the first point, all animals may be considered physiologically as apparatuses having a certain amount of physical, chemical, and "vital" work to do, or of functions to perform. In their essential nature these functions are the same for all animals whatsoever, and they fall under the three heads of absorption, metamorphosis, and irritability. The functions of absorption are all those which are concerned in the conveyance of nutriment to a living part; metamorphosis includes all the changes, whether of composition (chemical) or of structure (formal) undergone by a living part; irritability comprehends all the phenomena of reaction upon a stimulus presented by a living part, whether these be in the form of simple contractility or of some kind or other of innervation.

So far as I am aware, the lowest animal performs the functions of absorption, metamorphosis, and irritability, and the highest exhibits no phenomena which may not be referred to one of these heads. In what points, then, lie the great differences among animals in respect of function?

The differences arise from what is known as the "physiological division of labour" among the higher forms; in the gradual division of the great functions into more and more special portions, and the setting apart of particular parts of the body, or organs, for the performance of these particular functions. Thus, in the lowest animals, such as the Amœba, we have neither special organs for absorption, nor for metamorphosis, nor for irritability, every part of their substance seeming to be capable of, in turn, performing any office. A step higher, in the Vorticella, there is a part of the body set aside for the primary act of absorption in the form of a rudimentary gullet, and a circlet of cilia is added as an accessory organ of the same function; at the same time we have in it and in the stem a special organ of irritability.

Proceeding upward in the scale, we find the function of absorption, for instance, gradually divided into ingestion and digestion, with special organs set aside for the performance of each process (Hydra). To these circulation is added as the organism becomes more complex; then excretion, with a special excretive aperture (Polyzoa).

Higher still, each of these functions again becomes subdivided and localized in a special organ, until, in the highest animals, we find "absorption" divided into prehension, mastication, insalivation, deglutition, digestion; absorption into the vascular system, circulation, and final nutritive absorption by the ultimate elements of the tissues; each of these functions, except the last, having a special and often highly complex organ for its performance.

We should arrive at the same result if any other of the primary functions were similarly traced, and we should find that, as in this instance, the only physiological difference between the highest and the lowest animal lies in their division of labour, or specialization of functions and organs.

The morphological distinction between the higher and the lower animals is, in some respects, of precisely the same order. Obviously, indeed, it is, to a certain extent, a necessary consequence of the physiological division of labour—a setting up of organs almost necessarily involving the development of specially formed parts. But it is of the very greatest importance to remember that this is neither the sole, nor the principal cause of the vast variety of animal form with which we are acquainted.

For we find that the most general distinctions which we can draw among animals relate not only to their being physiologically more or less perfect in regard to one another, but to the plan upon which they are constructed. A snail, a lobster and a horse, a polyp and a sponge, differ not merely in the degree of their completeness as apparatus, but in kind; the whole plan of construction and arrangement of any one being entirely different from that of any of the rest.

Every animal, then, and every part of an animal, may be regarded as the resultant of two tendencies, the one physiological the other morphological. The former, we have seen, is the law of the physiological division of labour; the latter may be termed the law of typical variation.

If we examine into the results of this law of typical variation a little more closely, we find that its simplest and most general expression is this:—Every animal is a modification of one or other of five ultimate plans of structure: either it is constructed after the plan of the Protozoa, or else on that of the Cœlenterata, or on that of the Mollusca, or on that of the Annulosa, or, finally, upon that of the Vertebrata. No animal now existing, nor any extinct form with which we are acquainted, presents any other type of structure than these five; nor, when we have sufficient data, is there ever the least difficulty in determining the type of which any given animal, either recent or fossil, is a modification. There are no intermediate forms. So important a law as this, requires the most careful verification, and I therefore proceed to explain to you shortly the evidence on which it rests. This evidence is of a twofold character.

In the first place, there are the arguments derived from what is commonly called "comparative anatomy." Suppose that, starting from the known structure of the human body, I compare with it that of the horse, the ox, the cat, the dog, etc. etc., I shall find that, notwithstanding the differences which the latter present, there is, nevertheless, a great and preponderant mass of resemblances. The differences will be found to affect the minor details of the organisms, while there will be found in all a striking harmony in the fundamental framework.

Suppose, again, that instead of confining myself to quadrupeds, I turn to birds, reptiles, and fishes, I shall still find the same thing; but the differences will become more and more important, while the resemblances will be more and more restricted to the most essential and fundamental points of the organization. If I pass beyond fishes to snails and insects, or, indeed, to any other animals, I find even these resemblances cease; not only the details, but the very framework and arrangement of the parts of these latter being very different from what is observed in man.

Thus, then, I arrive at the conclusion that, while man and quadrupeds, birds, reptiles, and fishes, are constructed upon a certain common plan or type, insects and snails are formed upon quite a different plan.

If, in my endeavour to find out what this plan may be, I start in the same way from the insect, I find it presents the most remarkable community in plan of structure, with spiders and millipedes, with crabs and worms, but that the snail seems to have no affinity with it.

Taking the same course with the Snail, however, and comparing it with what remains of the animal world; I find that the cuttlefishes, the whelks, the mussels, and similar forms, group themselves round it as a type, but that there is still a great residuum the multitudinous forms of which still refuse to be comprehended under one head, but must be ranged under two types, the one represented by the hydra or by the sea anemone, the other by the vorticella or by the amœba.

Such is the general result of a careful comparison of all the forms of animals one with another; all might be arranged round the five forms of man, the insect, the snail, the polyp and the amœba; and the five groups thus formed would have, as it were, a certain family resemblance; each would have sharply circumscribed boundaries, and there would be no outlying forms connecting one with the other.

But this expression of typical resemblance is by no means, as an eminent historian of science has asserted, the final result of the anatomist's investigations; properly speaking it is only a preliminary step towards that precise enunciation of the laws of animal form which can alone be the object of the science of Morphology. Now, if we pass from the appreciation of the fact of the existence of five plans or types, to the inquiry into the cause of this secret relation among animals, we find that there is, in reality, a strictly definable community in the arrangement of the essential organs among the members of each typical group, while this plan is different from that of any other group.

Thus among the Vertebrata we find that of the three great systems of organs,—alimentary, vascular (hæmal), nervous (neural) (d),—the former occupies the axis of the body while the centres of the latter are situated one upon its dorsal, the other upon its ventral side. The anterior part of the alimentary canal does not traverse the nervous centre, being separated from it by a partition containing a peculiar body, the chorda dorsalis. The body is divided into successive segments; the limbs when developed are turned away from the neural side, so that the creature moves with its hæmal side turned downwards. There is an internal skeleton. In transverse section these characters may be represented by the figure (A).

In the Annulosa there is the same relative position of the great central organs to one another, but the neural side is that which is ordinarily turned downwards. The anterior part of the alimentary canal perforates the nervous centre, which is not separated from it by a partition containing a chorda. The body is composed of successive segments, usually provided with limbs, and the skeleton is external. In transverse section this plan is represented by figure (B).

In the Mollusca the relation of the parts in the general plan is essentially the same as in the annulosa; but the body is not composed of successive segments, and no true articulated limbs are ever developed.

The plan of the Cœlenterata differs from that of any of the foregoing in the general absence of either nervous or vascular centres; and in the free communication of the alimentary canal with the general cavity of the body, which is bounded by two distinct membranes, an external, representing the "serous" layer of the germ, and an internal, representing its "mucous" layer.

Finally, the last plan, that of the Protozoa, is characterized by the absence of distinct nervous, vascular, and alimentary centres, of any differentiation of the body into serous and mucous layers, and by the general—if not universal—existence of a so-called "nucleus," in the interior of the body. The existence of a peculiar organ, to be described by and by, the "contractile vesicle," also appears to be peculiar to, though not invariable in this type.

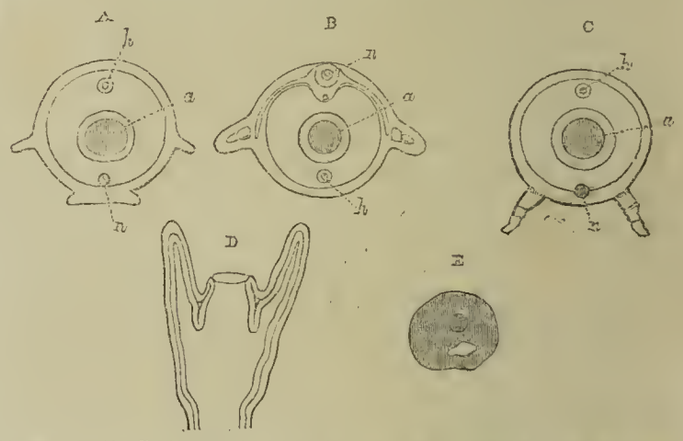
Such is, I believe, a fair summary of all the precise results at present obtained by the application of the comparative method to the investigation of the general plans of construction of the animal kingdom. Every animal can, by anatomical examination, be either at once referred to one of these plans; or, in the few difficult cases, it can be connected with some clear example of one plan, by a clear and certain gradation.

But the doctrine of common plan, if it rested on anatomical grounds alone, would be by no means secure. For animals, as we have already seen, like all living beings, not only *are*, but *become;* and it is within the limits of logical possibility, that the adult forms anatomically similar, should be genetically different; that they should have arrived at a similar point by different roads. Before, then, we can affirm that two animals are constructed upon a common plan, or that two parts are homologous, (which simply means that they are modifications of corresponding members of a common plan,) we must be able to show that these parts or these animals, have passed through a corresponding series of developmental stages. It is the absence of this reference to development which is the vice of the ordinary works on philosophical anatomy, while it is the clear perception and enunciation of the value of development as the basis of Morphology, which is the great merit of Von Bär, and which will cause his name to be reverenced as that of the founder of scientific morphology, long after the current attempts to revive the essentially unscientific realism of "Archetypal Ideas" shall have sunk into oblivion.

Now, so far as I am aware, the application of the test of development to the actual modifications of the five common plans as I have above defined them, has invariably tended to strengthen the grounds upon which they have been established; and to clear away all anomalies and apparently transitional forms. The illustrations of this fact will appear abundantly as we proceed, and it is, therefore, unnecessary to collect them here; but there is one great law which development alone can teach us, and which is of so general a nature as to require mention in this place.

It is the law, that not only are all the members of the animal kingdom divisible into five great groups, each of which follows a common plan; but that, to a certain extent, for a short distance in the course of their development, they follow a common course. As a rule,—the apparent exceptions to which gradually disappear under careful investigation,—every vertebrate, every annulose, every molluscous, and every cœlenterate germ passes through the condition of what is called "yelk-division," or something corresponding to it, and becomes a blastodermic vesicle or disc, composed of two more or less anatomically distinct layers, one of which gives rise to the tegumentary organs, the skeleton, and the so-called organs of animal life; while from the other the chief alimentary organs are developed. On the other hand, in the protozoa, nothing corresponding to this yelk-division, and subsequent production of a double blastodermic layer or vesicle, is known to occur.

There is, therefore, one condition, that of the "germ," a particle of "viable matter," with or without a central endoplast, which is common to all animals, and in this sense alone can any unity of organization be predicated of them. Of all except the protozoa, however, we may assert a further unity of organization, viz., that they pass through yelk-division or something corresponding to it, and become blastodermic discs or vesicles. Beyond this point each animal seems to branch off into the form peculiar to the common plan of the division to which it belongs; and so gradually becoming more and more specialized, it assumes the plan of the family, the genus, and the species; in its adult condition only, taking on its final and individual peculiarities.



Diagrammatic Sections of—A. Mollusca; B. Vertebrata; C. Annulosa; D. Cœlenterata; E. Protozoa—n. Neural Centre; a. Alimentary Centre; h. Blood Vascular Centre.

(d) I have used here, in a more general and somewhat different sense, terms introduced into use for the Vertebrata only, by Professor Owen.

ORIGINAL COMMUNICATIONS.

EXPERIMENTAL AND CLINICAL RESEARCHES UPON THE CHANNELS OF TRANSMISSION OF THE SENSITIVE IMPRESSIONS THROUGH THE SPINAL CORD AND MEDULLA OBLONGATA.

By E. BROWN-SÉQUARD, M.D.,
Laureate of the Académie des Sciences, Vice-President of the Société de Biologie, Lecturer on Experimental Physiology, etc.

PART II.

In this second part I am obliged, on account of the necessity of giving more details about the experiments, to change my method of explanation. In the preceding part I first stated the facts and then drew the conclusions; here I will first state the conclusions and then relate the facts upon which they are based.

I. *There are two kinds of sensitive fibres in the posterior columns of the spinal cord, some going up towards the encephalon (centripetal or ascending fibres), some going in the opposite direction (centrifugal or descending fibres.)*—I had found long ago, that after a transverse section of the posterior columns of the spinal cord, the inferior surface of the section, or that of the part of the posterior columns which seems to be sepa-

rated from the encephalon, remains sensitive. In 1852 I was forcibly led to admit, that there are sensitive fibres going in a centrifugal direction in the posterior columns. The following experiment was the first which led me to this conclusion. I introduce a very sharp bistoury between the posterior and the anterior parts of the spinal cord, so as to separate the two posterior columns from the grey matter, and from the antero-lateral columns. By this means I obtain a segment of the posterior columns, in continuity, by its two extremities, with the rest of the spinal marrow. This being done I divide transversely the upper extremity of this segment, leaving it attached merely by its lower extremity to the rest of the cord. This segment I find sensitive in the whole of its length, when it is not much more than two inches long, in a large animal.

If we prepare, in the same way as in the preceding experiment, a segment of the posterior columns, two inches long, and attached by its upper extremity, instead of being attached by the lower, we find, also, that this segment is sensitive in all its length.

To avoid circumlocution, I will call "cephalic segment" the one united to the cord by its upper or cephalic extremity, and "caudal segment" the one united to the cord by its lower or caudal extremity.

A caudal segment usually seems to be more sensitive than a cephalic segment. The sensibility in the two segments increases from the free or divided extremity to the attached extremity. When the segments are four or five inches long, sensibility disappears from the divided extremities.

The pain produced when we irritate the caudal segments arises from two causes, the principal of which is, that there are some descending or centrifugal sensitive fibres in it. The other cause is, that reflex painful cramps take place in consequence of the irritation of this segment.

The existence of the descending sensitive fibres will be rendered more certain by other experiments which will be related hereafter.

II. *There are also ascending and descending sensitive fibres in the posterior grey horns, and, very likely, in the posterior parts of the lateral columns.*—In making a caudal or a cephalic segment of the posterior columns, if we leave united with the segment longitudinally a part of the lateral columns with the two posterior grey horns, we find that sensibility is greater in the posterior columns of the segment than when it is composed only of the two posterior columns. When we leave a great part of the lateral columns with the segment, its sensibility seems to be a little greater.

Now we have to examine where the descending and ascending sensitive fibres of the posterior columns are coming from, and by what channels they communicate with the encephalon.

III. *The ascending and descending sensitive fibres which exist in the posterior columns, come mostly, if not entirely, from the posterior roots of the spinal nerves.*—I draw this conclusion from the following experiments, which show, that a certain number of the fibres of the posterior roots pass through the posterior columns.

After a transverse section of the posterior columns at a little distance in front of the posterior roots of a pair of nerves, I ascertain that these roots are still sensitive, although a little less than before the operation. Then I divide transversely the posterior columns at a short distance behind these roots. Their sensibility after this second section is very much diminished, so that we are led to admit, that many of the fibres of the posterior roots pass into the posterior columns in which they are descending.

Now, in making first the section behind the posterior roots of a pair of nerves, we find their sensibility diminished, and after the section before these roots we find it very much more diminished. So that we are led to admit, that many of the fibres of the posterior roots pass into the posterior columns in which they ascend towards the encephalon.

IV. *The posterior roots not only send ascending and descending fibres to the posterior columns, but also to the posterior grey horns, and very likely to the posterior parts of the lateral columns.*—After having divided transversely the two posterior columns in front and behind the posterior roots of a pair of nerves, if we enlarge these two sections by dividing transversely the posterior grey horns, and the posterior parts of the lateral columns, we find that these roots lose entirely their sensibility.

If we introduce a flat needle into the posterior grey horns, in front and behind the posterior roots of a pair of nerves, so as to divide transversely these horns, we find that sensibility is diminished in these roots. If these punctures into the grey matter are made only in front or behind these roots, their sensibility is very little diminished after the operation.

If we divide the posterior part of the lateral columns, together with the posterior grey horns, we find that the loss of sensibility is a little greater.

V. *The ascending and descending sensitive fibres which have passed from the posterior roots into the posterior columns, the posterior grey horns, and very likely also the lateral columns, soon leave these parts to go into the central grey matter.*—This is proved by a great many experiments, of which I will relate only the following:—After having made a transverse section of the posterior half of the spinal cord, if we make a second similar section, at a distance of four or five inches, or more, if the animal is a very large one, we find that the upper surface of the lower section is very sensitive, and the posterior roots attached near it are also very sensitive. Now, if we make other transverse sections of the same posterior half of the spinal cord behind the upper one, we find that the nearer the section is made to the lower one, the more sensibility is diminished in the parts which we had found very sensitive at first. This is a proof that the ascending sensitive fibres, when going upwards, leave the posterior parts of the cord one after the other. An experiment of the same kind proves that the descending fibres behave as the ascending do.

After having gone out from the posterior columns and the posterior grey horns, the sensitive fibres pass into the central part of the grey matter, as is proved by the effect of the transverse section of this central part of the cord.

VI. *The ascending and the descending sensitive fibres coming from the posterior roots, decussate in the spinal cord.*—It was admitted, before my researches, that there is no crossing of the sensitive fibres into the spinal cord. Physiologists and Pathologists entirely agreed upon this subject, and, in the books upon the diseases of the spinal cord it is stated as a well-proved fact, that a lesion of one side of this organ produces paralysis both of voluntary movement and sensibility in the same side of the body. The following experiments prove that the sensitive fibres cross each other in the spinal cord, and we will relate, in a moment, a few (out of many) pathological facts which agree with these experiments.

After having divided transversely a lateral half of the spinal cord in the dorsal region, we find that there is an increase in the sensibility of the parts of the body situated behind the section, while the corresponding parts in the opposite side of the body are much less sensitive than before the operation. This experiment and the following prove that the transmission of the sensitive impressions coming from the left side of the body, takes place mostly along the right side of the spinal cord, and *vice versâ*.

If a transverse section of a lateral half of the spinal cord is made in the cervical region, the two limbs on the side of the section become hyperæsthetic, and the limbs on the opposite side lose, at least, a great part of their sensibility.

If, after a transverse section of a lateral half of the spinal cord in the dorsal region, we divide the other half of this organ in the cervical region, we find that the hyperæsthesia, which existed after the first section in the parts of the body which are behind it, disappears, and is replaced by anæsthesia.

If we divide transversely, first, the two posterior columns of the spinal cord in the dorsal region, we find, as I have already said in the first part of this paper, that the posterior limbs are in a state of hyperæsthesia. This being ascertained, I divide transversely the remainder of a lateral half of the spinal cord, at the place where the posterior columns have been divided, and then I find that the hyperæsthesia of the posterior limb, behind and on the side of this second operation, becomes increased, while not only the hyperæsthesia, but sensibility, disappears almost entirely in the other posterior limb.

A longitudinal section, separating the spinal cord into its two lateral halves, gives very decisive results as regards the crossing of the sensitive fibres in this organ, particularly when this section is made upon the cervico-brachial enlargement. In such a case, sensibility is lost in the two anterior limbs, while it remains, and seems somewhat increased, in the two posterior limbs. This having been ascertained, if I divide transversely one of the lateral halves of the spinal cord, at the place where they are separated one from the other, I find that there is an increase in the hyperæsthesia of the posterior limb on the same side, and that the sensibility of the other posterior limb is almost entirely destroyed.

It would be too long to relate some experiments which prove that the appearance of sensibility in the side of the body opposite to the section, depends upon a communication between this side and the other, which is hyperæsthetic, by means of reflex action and of what has been called recurrent sensibility by Magendie.

VII. *The ascending, as well as the descending sensitive fibres make their decussation, in a great measure, very near their place of entrance into the spinal cord from the posterior roots.*—After having divided transversely a lateral half of the spinal cord, in the dorsal region, if we divide longitudinally this organ, so as to separate its two lateral halves one from the other, and at a right angle with the transversal section, we obtain the following results, when the longitudinal section, in a large animal, is only two inches long:—Whether this longitudinal section has been made behind the transverse one (so as to give a caudal segment of a lateral half of the cord), or before the transversal (so as to give a cephalic segment), we find that sensibility persists, but diminished, in these segments, and in the posterior roots which are inserted upon them. If the longitudinal section is more than two inches, sensibility does not exist in the whole length of the segment; it begins to exist at the distance of about two inches from the extremity, which adheres to the rest of the cord, and it increases by degrees from this part to the adherent part.

VIII. *There are pathological cases observed in man, which prove also that the sensitive fibres make their decussation in the spinal cord.*—I have already published some cases of this kind, and they will be found, with a few others, in the book I am about publishing. I will merely relate here, shortly, the three following:—

1. A patient was paralyzed of voluntary movement on the right side of the body, with unimpaired sensibility. On the left side, on the contrary, he had lost sensibility, but had no paralysis of voluntary movement. After death, a fungoid growth was found pressing upon the right lateral half of his spinal cord.

2. A patient, with loss of voluntary movement, and conservation of sensibility in the arm and leg, on the left side, had only a very obscure sensibility in the same parts on the right side. After death, a clot of blood was found in the left lateral half of his spinal cord in the cervical region.

3. A patient had lost voluntary movement, and had his sensibility normal on the right side of the body. On the contrary, on the left side, he had entirely lost sensibility, but had no paralysis of voluntary movement. After death, a clot of blood was found in the left lateral half of the spinal cord, in the cervical region.

It results clearly from these facts, and from others which I cannot relate here, that the sensitive fibres cross in the spinal cord.

IX. *Many cases of alteration of a lateral half of the medulla oblongata, and of the pons Varolii, prove that the decussation of the sensitive fibres of the trunk and limbs takes place in the spinal cord.*—I will merely relate, as briefly as possible, three of these cases as examples:—

1. A patient had paralysis of voluntary movement in the limbs, on the left side, and also a very dull sensibility in these limbs.

The symptoms increased, and the hemiplegia became complete in the left side, but the right side remained perfectly healthy. After death, the right lateral half of the pons Varolii was found to be the seat of a diffluent softening, while the left half was healthy.

2. A patient was hemiplegic both of voluntary movement and sensibility on the left side of the body. After death, a *ramollissement*, the size of an almond, and resembling liquid pus, was found in the inferior and middle part of the right side of the pons Varolii.

3. A young Pole became paralyzed both of sensibility and voluntary movement in the left side of the body. After death, the right side of the pons was found double its normal size, extending forwards and backwards, and compressing the neighbouring parts. The cause of the enlargement of the pons was a very large clot of blood.

These facts do not agree with the views of Longet, as to the place of crossing of the sensitive nerve-fibres in the cerebro-spinal centre. Longet thought that this crossing took place in front of the pons Varolii, where the processus cerebelli ad testes seem to decussate.

The cases of alterations, limited to one-half of the pons Varolii, of the medulla oblongata, and of the spinal cord, all agree in showing that the sensitive fibres of the trunk and limbs make their decussation in the spinal cord, and not higher. The very disputed question, whether the medulla oblongata has a crossed action for sensibility or not, is decided in the affirmative by these facts.

Some anatomical appearances had led Sir Charles Bell (a) to admit that the decussation of the sensitive fibres takes place in the floor of the fourth ventricle, near the nib of the calamus. It is not necessary to show that this view is in opposition with the results of the experiments and of the pathological cases which prove that it is in the spinal cord that the sensitive fibres decussate.

IX. *The transmission of sensitive impressions through the spinal cord takes place in some definite directions, and not, as many German physiologists have thought, in almost every direction.*—The fact that a section of a lateral half of the spinal cord does not prevent the taking place of the transmission of the sensitive impressions coming from the parts of the body which are on the side and behind the section, had led Stilling and others to admit that the grey matter of one-half of the spinal cord was able to transmit impressions coming from the two sides of the body. Other experiments upon frogs,—animals in which reflex actions are very energetic,—have misled these physiologists, and they have concluded that the transmission of sensitive impressions may take place almost in every direction in the spinal cord, and that one part of the cord may act in place of another in a supplementary manner.

These views, which are in opposition with the theories of the isolation of sensations, are also in opposition with many of the experimental and clinical facts we have related. It is not necessary to show how these facts are in opposition with the views of the German physiologists. We will merely say, that the loss of sensibility observed in experiments and in pathological cases, on the side of the body opposite to the side of the lesion, should not have taken place had these physiologists been right. Another striking experiment against their view is, that a longitudinal section separating the spinal cord in the whole lumbar region, prevents the taking place of transmission of the sensitive impressions coming from the posterior limbs.

All the experiments I have made tend to prove, that the transmission of sensitive impressions follow a definite course in the spinal cord, and that when they cannot follow their normal course, they do not find a supplementary one.

The course of sensitive impressions in the spinal cord is not the same as that of the nervous force for the reflex actions.

M. Flourens has shown long ago, that the spinal cord has the faculty of propagating the nervous force in almost every direction for the reflex actions. The following experiment shows the differences between the transmission of sensitive impressions and that of the nervous force acting for reflex actions. After having divided longitudinally in two lateral halves the lumbar enlargement of the spinal cord, we find that sensibility is lost in the posterior limbs, and that reflex actions remain in them before and after a transverse section has been made in the dorsal region of the spinal cord.

X. *There are some transverse fibres in the spinal cord, coming from the posterior roots, which do not seem to transmit sensitive impressions.*—After a transversal section of the posterior half of the spinal cord, just in front and behind the roots of a pair of nerves, we find, that there is hardly any appearance of sensibility in the posterior roots inserted between the two sections. There is, when we irritate these roots on one side, or rather when we irritate the part of the skin to which they are distributed, a slight reflex movement on the corresponding and on the opposite side of the body. The transverse fibres, which the microscope shows going from the posterior roots of one side to the anterior roots of the corresponding and of the opposite sides, seem not to be employed for the transmission of sensitive impressions, but for reflex actions. These transverse fibres have been seen by almost all the micrographers; but it is mostly to Stilling, and after him to Mr. J. Lockhart Clarke, that we owe the first good descriptions of them (b).

(a) The Nervous System of the Human Body, Third Edition. 1844. Pp. 218.

(b) Mr. Clarke has also shown, that there are descending fibres coming from the posterior roots, in the spinal cord. I am happy to agree with so accurate an anatomist as regards this fact, as well as many others.

REMARKS
ON THE ANATOMY AND PHYSIOLOGY OF THE SPINAL CORD.

By J. LOCKHART CLARKE, F.R.S.

In the *Medical Times and Gazette* of April 26 I find, in a summary of experiments on "the Channels of Transmission of the Sensitive Impressions through the Spinal Cord and Medulla Oblongata," by Dr. Brown-Séquard, that some allusion is made to my researches on the Anatomy and Physiology of the Spinal Cord. I have reason to think that this allusion may not be sufficiently understood, by those, at least, of his readers who are unacquainted with my inquiries; and I therefore consider it proper to give a more explicit but brief account of that portion of them which bears so closely and so strongly on some of the very valuable and remarkable experiments of Dr. Brown-Séquard.

Before the appearance of my investigations in the *Philosophical Transactions of the Royal Society* for the years 1851 and 1853, the opinions were generally maintained, that the posterior—sensitive and impressional—roots of the spinal nerves were attached to both the posterior and lateral white columns of the cord; and that the posterior columns were the channels of communication between these nerves and the sensorium (a). Now, in the first part of these inquiries, among other facts, I proved, by means of a new method, and to the entire satisfaction of many of our most distinguished anatomists, that the posterior roots are attached immediately to the posterior columns alone, and that they communicate with the lateral columns only after traversing certain portions of the grey substance. In the second series of inquiries may be found a very full and minute description of both roots of the spinal nerves, and of their course in the white and part of the grey columns, illustrated by plates which were made from preparations that I have now by me, and are open to inspection. The posterior roots, as there described, are composed of three kinds of bundles.

The first kind enter the cord transversely, and pursue a very remarkable course, but are not satisfactorily seen below the cervical enlargement. Each bundle, after traversing the longitudinal fibres of the posterior columns in a compact form, and at a right angle, continues in the same direction to a considerable, but variable, depth within the grey substance, dilating and again contracting, so as to assume a fusiform shape; it then bends round upon itself at a right or more obtuse angle, and running for a considerable distance in a longitudinal direction down the cord, sends forwards, at short intervals, into the anterior grey substance, a series of fibres like those issuing from the roots of a plant. In this longitudinal course, it is joined by corresponding fibres from bundles above and below it, which thus contribute to form a continuous band, as low, at least, as the cervical enlargement. The fibres, or as it were, rootlets, projecting from this band into the anterior grey substance, have the following distribution:—Part of them form loops with each other within the grey substance, particularly near its border: others extend directly into the anterior and lateral white columns, and bending round, both upwards and downwards, are seen sometimes to re-enter the grey substance, and form with each other a series of loops, and sometimes to continue a longitudinal course within the anterior (and probably lateral) columns, among the fibres of which they become lost.

The second kind of bundles also traverse the posterior columns transversely, but with different degrees of obliquity from without inwards, extending nearly as far as the posterior median fissure. They enter and pass through the posterior grey substance at various angles and in a compact form, interlacing and intertwining each other in the most complicated manner; some of their fibres cross over to the opposite side, through the posterior commissure, behind the spinal canal. Others extend outwards, into the posterior and lateral white columns; while the rest may be traced deeply into the anterior grey substance, where they separate in various directions, and are ultimately lost to view.

The bundles which compose the third kind of posterior roots enter the cord obliquely, and pursue two opposite courses. A few of their fibres proceed near the surface, both upwards and downwards, and pass out again, with the roots above and below them. The rest cross the posterior white columns obliquely, and chiefly upwards, a smaller number only, running downwards. Interlacing, at the same time, with each other and the roots already described, they diverge, and, for the most part, reach the grey substance, at points successively more distant from their entrance in the cord, in proportion to the greater obliquity of their course in the posterior white columns; the remaining, or most divergent, fibres taking a longitudinal course with the fibres of those columns, among which they become lost. It is impossible to say whether any of these latter fibres are continued upwards as far as the brain, or whether they ultimately reach the grey substance of the cord.

From these anatomical data I felt myself justified in drawing the following conclusions:—(b) "It may, then, I think be fairly laid down as a well-established fact, that nearly all, if not the whole, of the fibres composing the roots of the spinal nerves, after passing through the anterior and posterior white columns of the cord, proceed at once to its grey substance; and that if any of them ascend directly to the brain, it must be those only of the posterior roots which run longitudinally in the posterior columns."

"The question, then, arises,—Do the fibres of the posterior roots, which run longitudinally in the posterior fasciculi, transmit impressions to the sensorium? In answer to this question it may be stated,—1st. That even if they reach the brain, their number appears insufficient to convey such impressions from all parts of the body; and, 2ndly, that the anatomical connexion of the posterior columns exclusively with the cerebellum, would, *à priori*, lead us to a negative conclusion, unless we regard this latter organ as the common centre of sensation, which we have no grounds for believing it to be. But the same anatomical connexion of the posterior columns with the cerebellum, clearly indicates that they establish some physiological relation between this organ and the spinal cord; and if the cerebellum were proved to be, according to the generally received opinion, a centre of motor power only, destined for the control and co-ordination of complex muscular movements, it would then follow, that these columns were motor, and not sensitive, whether or not we admit them to be constituted wholly, or in part, of the longitudinal fibres of the posterior roots.

"Upon anatomical grounds, then, it would appear, that the posterior columns are not the channels of communication between the sensorium and the posterior spinal nerves."—*Philosoph. Trans.* 1853, p. 350-1.

I am not aware that any opposition has been made to these conclusions which I drew from my anatomy, and which are now confirmed by the experiments of Dr. Brown-Séquard. Nevertheless, there was still wanting the physiological proof which he has so ably and ingeniously supplied.

The nerve-fibres which run downwards in all regions of the cord I have observed with remarkable distinctness in some of the Articulata, in which they are exactly equal in number to those which pass upwards.

Belgravia South, April 28, 1856.

(a) This latter opinion, however, was opposed by the arguments of Dr. Todd, in favour of the motor endowments of the posterior columns.

(b) The anatomy of the anterior roots tends to the same conclusions.

ON LEUCORRHŒA.

By W. J. ANDERSON, F.R.C.S.
Obstetric Surgeon to the St. George's and St. James's Dispensary.

(Continued from page 110.)

Mrs. J., aged 23. December 28, 1853. Severe leucorrhœal discharge, and prolapsus uteri. Is reported to be six months advanced in pregnancy, but, on examination, she proved to be under four. The uterus was easily replaced, and she was ordered to keep the recumbent posture. There was much swelling and inflammation of the external organs, which, under antiphlogistic treatment, subsided; but the nymphæ were hypertrophied, hard to the touch, exceedingly tender, and ulcerated, causing severe suffering, and preventing her from sitting down. She had married at sixteen, and, after the birth of her first child, the nymphæ began to enlarge, and have caused acute pain ever since. She has had four confinements subsequently, each time at the seventh month, the children dying soon after birth. On March 18, she miscarried,

and recovered naturally; but the nymphæ still continued acutely painful and sensitive. All other means of relief failing, I removed the hypertrophied growths, by means of curved scissors, on May 6; no hæmorrhage followed, on account of the alteration of structure; they were callous and almost cartilaginous, covered with cicatrices of old ulcers, and fresh ones in various stages. She was much relieved by the operation; all pain ceased, together with some very severe hysterical symptoms, heretofore present. The wound did not heal kindly, but, on suspicion, a course of mercury was administered, and she was quite well by August 7.

In all probability this case was produced by syphilis, although no history was given; the repeated premature labours, the death of the children, as well as of the last fœtus, the callous nature of the nymphæ, their obstinate painful ulceration; and lastly, the marked beneficial effects of the mercury, would all tend to prove this.

Mrs. N., aged 28. December 14, 1853. Leucorrhœa of three months' standing, coming on after delivery, three months ago; the child died two months after birth, and she has had one child previously; the discharge is clear and copious, and there is much pain in the back and loins, as well as in the region of the uterus; she has just recovered from profuse hæmorrhage. Pulse very weak, tongue pale, countenance exsanguine, and she perspires profusely. She has had leucorrhœa before, and has been treated for "diseased neck of the womb," by means of the speculum, but without avail, for nearly five years. Her symptoms so clearly depended upon a state of anæmia increased by recent parturition, that I did not even make a digital examination; I at once gave her tonics, and endeavoured to check the discharge by means of astringent injections. This plan cured her completely by February 15, 1854; and it appears to me, that such treatment would have been much more successful on previous occasions, than that to which she had been induced to submit.

Mrs. A., aged 25. July 17, 1854. Four years ago she was delivered, after a severe labour, of a large dead child; this was her first, and she has not been pregnant since. She suffered much from leucorrhœa after this, and became the patient of a very worthy man, under whose care she greatly improved, but, after four months' treatment, she was advised by her friends to place herself under the care of a speculum practitioner. The advice was taken, and for six months she had leeches applied about twice a week to the os uteri. She was then somewhat more carefully examined by the speculum, and pronounced to have "fibrous deposit on the mouth of the womb." Potassa fusa was now applied to the os uteri, eight different times, at intervals varying from a week to a fortnight; this proceeding was described as causing the most excruciating pain, and was always followed by some hæmorrhage. The application of the caustic was followed by an injection of vinegar and tepid water, "to stop the burning." Great pain continued for many hours, and was not completely recovered from for several days. At the end of four months, she was pronounced "cured;" but, as she said, without having derived any benefit from the treatment. This was a year ago, and she has since suffered from profuse leucorrhœa, with pains in the back and groins, accompanied with distressing bearing down, giving rise to the idea that she had prolapsus uteri, for which she always wears a napkin. Catamenia have been perfectly regular and natural. The vagina is lax, but not tender; the anterior lip of the os uteri is irregular and eroded, though not in a state of ulceration; the posterior one is almost entirely gone, but the uterus is naturally situated, and free from disease. Under the use of tonics internally, and astringent injections locally, a perfect cure was effected by January 15, 1855.

What benefit did she derive from the treatment she at first experienced? I simply ask the question, and pass no further comment on the case.

Mrs. J., aged 26. November 20, 1854. Seven years ago she caught cold, and the catamenia ceased, having been regular and natural previously; since then she has suffered from amenorrhœa, and a constant leucorrhœal discharge, generally clear and thin, occasionally thick, but never purulent or sanguineous. There is much bearing down, and pain in the back and groins. She has been married five years, but has never been pregnant. She has been a patient of the same practitioner as the last, and has been treated for the last eight months with the speculum, leeches and caustic, from which she has suffered much pain, but derived no benefit. Vagina somewhat lax, but not tender; os uteri perfectly smooth and healthy; uterus quite free, natural and not adherent. Attention to the general health by the employment of steel, aloetic purgatives, occasionally a few leeches to the groins when requisite, and the hot hip bath, eventually induced the return of the catamenia; and now, September 1855, they have occurred regularly, though scantily, for eight successive periods. How the cauterization of the os uteri, and irritation of the vagina by the speculum, were to bring about a return of the natural periodical discharge, is to me a mystery which I am perfectly unable to solve. Can anything be more demoralizing than the indiscriminate use of the speculum? Yet, notwithstanding this, it is used by some men for everything, often without a single uterine symptom; and, not unfrequently, in young unmarried women. Nothing can justify the use of such an implement in the latter case; no knowledge can be gained by it, and even if it could, the injury inflicted is too severe and lasting to make compensation; independently of which, there is that outrage upon female modesty which should never be infringed upon, and is, alas! more easily removed than replaced. The words of Gyges to Candaules, King of Lydia, quoted by Herodotus, can never be too firmly impressed upon the mind. "Ἅμα δε κιθῶνι ἐκδυομένῳ συνεκδύεται και την ἀιδὼ γυνή." And, again, in the next chapter we find, "παρὰ γὰρ τοῖσι Λυδοῖσι, σχεδὸν δὲ και παρὰ τοῖσι ἄλλοισι βαρβάροισι, και ἄνδρα οφθῆναι γυμνὸν, ἐς ἀισχυνην μεγάλην φέρει."

These quotations show the strict propriety of feeling which existed at this early age, although it is so often wanting and so often violated in our own time.

Leucorrhœa may occur at all ages; and, though Sennertus says, "Virgines raro hoc malum (fluor muliebris) infestat, frequentius adultiores," he is evidently mistaken; for it is an exceedingly common occurrence, just before the accession of puberty, and, in a purulent form, not unfrequently occurs in early childhood. Again, we find in Hippocrates, "Ῥοος δε λευκος εν Γησι γεραιτερησι των γυναικων μαλλον γινεται η εν τησι νεωτερησι." This is also a fallacy, for, as a general rule, in advanced life even the natural secretion diminishes; and, very often, irritation is produced in consequence of the unwonted dryness of the membrane, which ought to be more copiously lubricated by mucus. In the forty-seventh letter of Morgagni, it is stated that the uterus itself is the source of a serosity of different colours, either simple or purulent; and a little further on he again says, that the internal membrane is affected with catarrh, as the membrane of the nose is in coryza. He seems particularly to dwell upon the appearance of certain excrescences about the cervix uteri, observed in post-mortem examinations, which appear to me to be nothing more than obstructed mucous follicles; at the end of the twenty-third section, he describes two of these excrescences, both small, and composed of vesicles, existing in the same os uteri. On cutting into them, the one contained natural mucus, the other limpid water. At the end of the next section, he mentions a collection of somewhat large vesicles in the same situation, some of which contained natural mucus, and others water. Some authors say that the discharge varies in its nature, during different stages of the complaint; this is not correct, for in one case it may be clear, in another it may be purulent at the very onset, though generally speaking it is clear at first; and certainly the difference of the secretions contained in the vesicles mentioned by Morgagni as existing in the same subject, would go far to bear this out "Notwithstanding the observations which have been made upon this subject by many authors, it must be obvious to every practitioner, well experienced in the diseases of females, that all classifications of the discharges, such as would enable us to decide, either upon the precise nature of the morbid action or the tissue diseased, are perfectly untenable." Jewel on Leucorrhœa. P. 52.

"Humor iste, quanquam plerumque albus (ut vulgo appellatur) et aquæ similis, interdum tamen glutinosus est, et coloris subflavi;—item subviridis, et mali odoris; atque tam acris ut, nisi partes in quas descendit sæpe eluantur, levis inflammatio fiat, cum pruriginе et dolore. Cuticula, quoque deteratur; et urina reddi nequeat, sine sensu pungentis caloris." Heberden's "Commentaria." Cap. xli. Do not both these quotations, conjoined with practical experience, show the futility of placing any reliance upon the nature of the discharge as a diagnostic sign? Neither do I see

in what way the microscope can assist us in the investigation of these cases; on the contrary, it certainly appears to me, that very serious fallacies might occur (at any rate with regard to our prognosis) from constantly inspecting the discharges under this instrument. It is not so much the nature of the discharge we wish to investigate, as the cause of that discharge, without a correct knowledge of which no scientific diagnosis, prognosis, or treatment can be arrived at. In cases of scirrhus, the microscope must often lead to grave mistakes, more particularly when it is trusted to alone; the so called cancer cells may perchance never happen to be present in the portion of the discharge selected for investigation, and, therefore, the disease is pronounced curable and not malignant, whereas a simple digital examination, in combination with the history of the case, would disclose its real nature with much more accuracy than the most powerful microscope in existence.

"But even supposing that no diagnostic marks existed, to guide the judgment of the young practitioner in distinguishing between chronic inflammation and incipient scirrhus of the cervix uteri, two questions will arise, to which no very decisive answers can be given. Is it not possible for inflammation, in its ordinary form, to terminate in carcinoma, or, to say the least of it, in disorganization? If the disease is confirmed scirrhus, may it not be arrested in its progress, if not entirely removed? I would reply to the last question, by observing, that I have seen more than one case where a morbid affection of the cervix uteri had been pronounced by eminent practitioners to be carcinoma, but in which the disease had been afterwards totally eradicated, the uterus again taking on its healthy functions, and the woman bearing children as before." "To consider scirrhus an incurable disease, or that it so exists throughout the system, as to become developed in one part when eradicated from another, appears to be a doctrine as dangerous as it is unscientific, inasmuch as it at once puts a stop to all pathological inquiry, and leads to the adoption of inefficient or palliative measures only in treatment."—Jewel on Leucorrhœa, pp. 29—33. Undoubtedly a woman afflicted with scirrhus uteri may become pregnant; but I am more than sceptical as to a case of genuine scirrhus being totally eradicated. It is a constitutional affection, and certainly, in our present state of knowledge, incurable in the majority of cases, Local inflammation or irritation may cause its development in any particular situation; but for this to take place, the malignant diathesis must previously exist. That it may occur in various parts in the same person is now well known, and the following case mentioned by Sir Benjamin Brodie in his lectures on Pathology and Surgery, (p. 209,) not only proves this, but shows also the constitutional nature of the disease. "There was a woman who had a scirrhous tumour of the breast; there was that brawny condition of the skin which I have already described as indicating a very bad form of the disease. The whole of the skin had assumed the scirrhous structure, so that the tumour of the breast was scarcely to be distinguished under it. She had also some disease of the liver, and there was a discharge from the uterus. She died, and on examining the breast, there was found a well marked scirrhous tumour in it; but in the liver there was a tumour, having equally well marked characters of fungus hæmatodes or medullary disease; and in the uterus there was an excrescence of that kind which the late Dr. John Clarke described as the 'cauliflower excrescence;' and which he regarded as an incurable malignant disease of that organ. So that these three diseases, all malignant, and to which different names have been given by pathologists, were all associated in the same individual."

Morgagni, in the 25th section of his 47th letter, mentions a purulent serosity produced by an ulcerated cancer of the uterus, and he emphatically states that this is incurable, even in the commencement; and again, the usual fetid odour is described as being generally present in most cases, but not always, as there are instances in which "there are large and deep ulcers of this kind which do not give out any bad odour." Future experience has most fully borne out the truth of these remarks, and should have shown us the futility of trusting solely to the nature of the discharge. It is a singular but convincing fact, that Morgagni mentions no case of simple ulceration of the os uteri in leucorrhœa; and it is quite certain that, with his intense accuracy of observation and unblemished adherence to truth, such a thing could not have escaped his observation; neither do I believe it exists one jot more frequently at the present day; women were formed then as they are now, and were liable to the same diseases; but providentially they were not treated with the speculum, and artificial ulceration produced by means of potassa fusa and other strong caustics.

In the treatment of cases in which leucorrhœa appears as a symptom, we must bear steadily in mind that local congestion is far from being incompatible with a state of anæmia; and though general bloodletting is wholly inadmissible, still the greatest benefit is not only derived from the local abstraction of a small quantity of blood, but it is sometimes absolutely necessary. On the 6th of March, 1852, a widow lady, aged thirty-eight, applied to me for advice under the following circumstances:—She had borne two children; the eldest, now living, was fifteen years old; the second was born a few weeks after the death of her husband, seven years ago, and survived its birth only a few days. From this time she suffered greatly from menorrhagia and leucorrhœa; the catamenial period being often attended with most excruciating pain, the general health being, of course, materially impaired. When I saw her she was thin, her countenance anxious, and her mind greatly depressed; she complained of low spirits, and the most intense feeling of fear; so much so, that she was obliged to burn a night light, and could not even then sleep, from downright terror; the catamenia always lasted profusely for ten days, and again appeared within a fortnight from their cessation, leucorrhœa continuing during the intervals. An internal examination gave considerable pain, and the os uteri was soft and puffy. Her bowels were generally confined, and she suffered much from flatulence; she had almost constant headache, evidently from weakness; and there was dragging pain in the back and loins. I ordered some aperient medicine and eight leeches to the groins. The very night after the leeches were applied she was enabled to sleep comfortably, and without fear; tonics were subsequently administered, under the use of which her general health improved, the leucorrhœa ceased, and the catamenia became regular and natural. I am now quite convinced, with regard to the local abstraction of blood, that it is never, in any case, necessary to take it from the os uteri; leeches to the groins or perinæum are quite sufficient, or, if somewhat more active treatment is required, cupping on the sacrum may be had recourse to. In many cases, though the discharge may be copious and may have existed for a considerable time, it would be highly injudicious to check it suddenly; but at the same time it may be requisite to moderate it; for this purpose I have frequently used a decoction of Bael, and have found it answer exceedingly well; I do not mean to hold it up as a sovereign remedy; but, having found it serviceable, it may not be deemed unworthy of a further trial.

Mrs. B., aged 46. January 11, 1854. Leucorrhœa of some standing, discharge copious and yellow, attended with much bearing down and pain in the back. Catamenia have been tolerably regular until the commencement of last month, when she caught cold and they have not been regular since; latterly they have been more profuse that natural, and coagula have passed. She is troubled with hæmorrhoids, which frequently bleed. Pulse weak, tongue clean. She has had eight children. She was treated for the hæmorrhoids, and tonics were administered for her general health; on the 15th the catamenia appeared slightly, and on the 20th decoctum balæ was ordered for an injection; this moderated the discharge, which eventually stopped, and she was perfectly well by March 10.

Mrs. B., aged 24. January 20, 1854. She has had two children, and has been troubled with leucorrhœa for three years, which has become much worse since her last confinement, which took place six weeks ago; there is now an abundant thick yellow discharge, attended with some pain and slight bearing down. She suffers much from dyspepsia accompanied with acid eructations. Pulse weak, tongue pale, bowels confined. Bitters and alkalies were at first employed, and decoctum balæ as an injection to regulate the discharge; this having become more moderate and clear, a combination of sulphate of zinc and alum was used instead, and she was quite well by February 15.

Mrs. L., aged 29. February 3, 1854. With severe leucorrhœa of one year's standing, which has been worse since her last confinement, four months ago; she having had six children altogether. The discharge is, at present, profuse and clear, attended with much pain in the back and inguinal

regions, together with a sensation of bearing down. Pulse weak, tongue clean. Leeches to the groins, and salines were at first employed, subsequently bitters and an injection of decoction of bael, which gradually checked the discharge, and she was well by March 3.

Mrs. R., aged 23. February 6, 1854. Has suffered from severe leucorrhœa since her second confinement, which occurred three months ago; the discharge is purulent and profuse, accompanied with pain in the back and loins, and distressing sensation of bearing down. Bowels rather confined, pulse weak, tongue clean. Aperients, bitters, and the bael injection were used, under which treatment she recovered by March 6.

Mrs. S., aged 32. February 8, 1854. Has had leucorrhœa on and off, for two or three years, which has been much worse for the last two months; the discharge is clear, but profuse and unattended with pain; the inguinal glands are enlarged slightly, and are painful. She has had two children. Catamenia regular. Pulse weak, tongue clean, bowels open. Bitters were administered internally, and decoctum balæ was used as an injection, which cured her by March 6.

Mrs. C., aged 29. February 17, 1854. Eleven months ago she was delivered of her sixth child, and since then has suffered from a profuse leucorrhœal discharge, which is thick, yellow, and accompanied with great bearing down and pain in the back and groins. She suffers much from dyspeptic symptoms, and is at present troubled with cough and difficult expectoration. Catamenia irregular, sometimes occurring every two months, sometimes every six weeks. Attention to the general health and chest symptoms, together with an injection of bael, cured her by March 8.

Ann P., aged 28. Single. February 22, 1854. With leucorrhœa of three years' standing, discharge thick and yellow, accompanied with bearing down and pain in the back. Catamenia regular, but scanty and painful. Bowels irregular, tongue pale, pulse weak. Bitters and the bael injection were employed, and she was well by March 27.

Mrs. F., aged 20. February 27, 1854. Has suffered from leucorrhœa for some years, which has been worse since her marriage, a year and a-half ago; she has not yet been pregnant. At present there is a profuse purulent discharge accompanied with much pain in the back and groins. She is now troubled with cough and expectoration. Catamenia irregular. At first, attention to the chest symptoms and the baal injection, subsequently tonics, and an injection of oak bark, as soon as the discharge became clear, cured her by April 3.

In a hundred cases which have occurred under my own care, and of which I have taken full notes, there are seventy-one which have arisen from purely debilitating causes, including those produced by parturition and abortion. In some of these cases, local congestion existed together with general debility, from whatever cause this might be produced.

There are then fifteen cases, in which there was local congestion, either pure or combined with other symptoms, as, dysmenorrhœa, menorrhagia, or occurring after parturition or abortion, all requiring the local abstraction of blood.

In only two instances did pure local congestion exist, uncombined with other causes.

Disordered menstruation was present in fifty-four cases, including those in which the function had just commenced or was just about to commence, as well as those in which it was about to cease.

There are twenty-five cases with regular and natural menstruation; fourteen of these had the leucorrhœal discharge clear, though varying in quantity. In eleven instances the discharge was not clear, but the causes might possibly be considered sufficient to account for this.

No. 12. General debility and parturition a year ago.
No. 21. Possibly infection. Gonorrhœa?
No. 23. Parturition three months ago.
No. 45. Parturition four years ago, and subsequent hard work.
No. 64. Parturition a year ago.
No. 86. Rupture of hymen and coition.
No. 88. Phthisis.
No. 93. Uterine congestion.
No. 94. Rheumatism.
No. 95. Debility increased by abortion.
No. 99. Repeated miscarriage.

In some cases no distinct account of the catamenia could be obtained; in others they had ceased from natural causes, as pregnancy and lactation.

Fifteen cases required the local abstraction of blood, on account of local congestion. Sixty-one cases were treated with astringent injections, though not in all cases at first; sometimes even local abstraction of blood being requisite at the onset.

The majority required a tonic plan throughout, or, at any rate, during some part of the time.

Thirty-two cases required no local treatment whatever, attention to the general health being quite sufficient.

In only one case was a strictly antiphlogistic plan of treatment required throughout; in this, subacute inflammation after delivery was the cause, and, probably, if proper active treatment had been employed at an earlier period, before I saw her, the leucorrhœa would never have existed; as it was it could only be called an outward manifestation of a more serious internal affection, viz., subacute inflammation of the uterus or its appendages after delivery.

From these deductions it would appear that leucorrhœa, in the majority of cases, depends upon debilitating causes, notwithstanding which, local congestion may also exist; and though local treatment is frequently required, constitutional treatment is absolutely necessary in every instance.

16, Welbeck-street, Cavendish-square.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

CENTRAL LONDON OPHTHALMIC HOSPITAL.

NOTES FROM CASES UNDER THE CARE OF HAYNES WALTON, Esq.

(Reported by J. G. REED, Esq.)

Brown ulceration of the cornea resembling the presence of a foreign body.—Affections of the cornea should always be regarded with interest, as the sense of sight is more frequently impaired by the spoiling of this part of the eye than of any other. We are induced to record the following case on account of its rarity, rather than from anything we can say about its pathology. But the narrative of it as a fact may draw attention to similar instances, and our ophthalmic stock of knowledge so receive addition.

A delicate female, aged 31, had what she termed "inflammation in her eye," just five weeks before she applied to Mr. Walton. An examination showed a central opacity of the cornea large enough to cover the pupil, and below it a large superficial ulcer, uniformly of a dark brown colour. The previous treatment having consisted entirely of blistering and purging, and no lotion having been employed, there was necessarily no metallic deposit or stain on the ulcer. Mr. Walton was at once struck with the peculiarity, and expecting that there might be prolapse of the iris consequent on a penetrating ulcer of the cornea, (called by the shocking name, "myocephalon,") or hernia of the posterior elastic lamina, he looked for such causes. These evidently did not exist; and so great a resemblance did it bear to the presence of a foreign body, that he thought it requisite to attempt the removal, but only under the influence of chloroform, as great delicacy was required, as well as steadiness on the part of the patient, lest the cornea should be broken through. The attempt was fruitless, as not a particle could be detached. The colour was not due to any extraneous substance.

A tonic was prescribed, and an opiate lotion as pain was a leading feature, and there was decided improvement in all the subjective symptoms; but the ulceration and the colour remained the same. After a few visits, the patient ceased her attendance.

Mr. Walton had not seen with a parallel case, but he said that this reminded him of brown opacities of the cornea, without ulceration, that he had met with in a man who occasionally visits the Hospital, the chief points of which have been mentioned in one of the Medical periodicals. He attempted to scrape off the opacity, but when the epithelium was removed, the colour was no less, showing that the anterior elastic lamina, if not the true corneal tissue, was affected.

The epithelium was examined with the microscope; some of the scales contained pigment granules.

Semicircular ulceration of the Cornea.—In severe purulent ophthalmia, after the chemosis has subsided, deep, circular, transparent ulceration is often met with (we do not mean loss of substance from sloughing); and it has been supposed that the chemosis causes the ulceration. Now, although we are not prepared to dispute this, we are sure that ulceration of the same form, kind, and severity takes place where there has not been this state of the conjunctiva, and Mr. Walton has pointed the fact out to the students several times. The examples have been in young people, and the result was favourable, more or less of opacity remaining.

We have now to speak of a similar affection occurring in elderly persons, of a very intractable nature. An inmate of the St. Pancras Workhouse, aged 70, very thin and in a very depressed state, applied on account of severe pain in the eye. There was but very little preternatural vascularity about the eyeball. The cornea was clear, but near the lower margin there was what seemed to be a circular indentation, rather than ulceration. It would be useless to transcribe the notes that were taken from time to time, as the result may be thus concisely expressed. Iron and quinine were given, and Mr. Walton wrote to the master of the workhouse, requesting that extra diet and more stimulus should be allowed; which was granted. Still, the ulceration progressed. The cornea became hazy, the whole eyeball congested, and the pain was no better, in spite of the local and internal use of opium. In ten days from the commencement of treatment penetration ensued, and a very large prolapse of the iris occurred. We have notes of two other cases that are similar in all particulars. It is well to be aware of the very unfavourable prognosis of this class of ulceration. It would seem to be due to mal-nutrition, a view taken by Mr. Walton. It must be to this disease that Dr. Mackenzie alludes, when he writes,—631,—"I may mention, that I have occasionally met with an obstinate variety of ulcer, in the same situation, which, creeping slowly on, one portion of it sometimes cicatrizing while another was spreading, has, at length, formed a deep trench round a great part of the edge of the cornea. This variety of ulcer occurs in old subjects; is attended by severe pain in the branches of the fifth nerve round the orbit; and if it does not destroy vision, by penetrating the cornea, is very apt to do so by exciting inflammation of the iris, and closure of the pupil."

Remarkable Deposit of Lymph on both Retinæ. Importance of a careful Examination.—A youth well grown, and whose general health appeared excellent, was sent to Mr. Walton on account of loss of sight, supposed to be produced by a blow on the back of the head, some months ago.

Except that the pupils, which were of medium size, were motionless, the eye-ball seemed natural. The irides were not pushed forwards, and the anterior chambers were large. With the right eye nothing could be discovered. With the left, light could be distinguished from darkness.

The blow on the head, not a severe one, was produced by a small bough of a tree that fell on him. About a week after, the sight of the right eye began to fail, (hence the blow was supposed to be the cause,) and gradually to get worse, the only accompanying subjective symptom being flashes of light. The left soon followed the same course. There was no palpable objective symptom.

The usual routine of salivation and cupping had been most rigorously employed. As the patient had brought a special recommendation to Mr. Walton, he desired to be able at least to arrive at a correct diagnosis, and directed the pupils to be dilated for a further examination. On the next visit they were fully dilated, and greyish-white deposits were seen at the backs of the eyeballs, apparently spread over the entire surface of the retina. By concentrated light this was more evident; and red vessels, moreover, could be discovered in several directions. It was hoped, that the ophthalmoscope might give a better definition; but the objects were rendered less apparent and seemed displaced, looking as if they occupied the pupils. This was supposed to be due to the crystalline lenses being absent, a supposition that was not verified by the employment of the catoptric test, which showed that they were present. What then was the nature of the opacity? Mr. Walton gave it as his opinion, that there was a deposit, most likely of lymph, between the retina and the vitreous humour; and that it had been poured out from the retina. He did not believe that any treatment would avail. The case is very instructive; it shows how great a change may take place in the eye, and how much damage may be inflicted, without any symptoms but flashes of light. But this is less surprising to those who know that affections of the retina, when *it alone* is implicated, are not painful and not attended with any external objective symptoms.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE HALF-YEAR ENDING DECEMBER, 1855.

(Continued from page 414.)

The subjoined Report comprises the following Hospitals:—Addenbrooke's (Cambridge), the Bradford Infirmary, the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General, the South Staffordshire (Wolverhampton), the Staffordshire General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn), and the York County Hospital.

AMPUTATIONS.—*Continued.*

Of the Leg.—Case 37.—A girl, aged 18, under the care of Mr. Teale, in the Leeds Infirmary, on account of diseased tarsus. Amputation just above the ankle. Recovery. *Case* 38.—A man, aged 29, under the care of Mr. Smith, in the Leeds Infirmary, his leg having been crushed in a railway accident. Primary amputation in the upper third. Recovery. *Case* 39.—A healthy young man, aged 21, under care in Addenbrooke's Hospital, on account of old-standing disease of the ankle-joint. Amputation in the upper third. Recovery. *Case* 40.—A delicate boy, aged 12, under Mr. H. Curling's care in the Margate Infirmary, on account of diseased ankle and tarsus. Flap amputation through the leg. Recovery. *Case* 41.—A girl, aged 17, in delicate health, under the care of Mr. Hunter in the Margate Infirmary, on account of diseased tarsus. Recovery. *Case* 42.—A boy, aged 16, under the care of Mr. Hey in the Leeds Infirmary, on account of disease of the ankle-joint. Amputation below the knee. Recovery. *Case* 43.—A cachectic man, aged 45, under the care of Mr. Coleman in the South Staffordshire Hospital, on account of chronic ulcers on the leg of several years' duration. His health giving way, amputation below the knee was performed. Recovered. *Case* 44.—A boy, aged 7, under the care of Mr. Furner in the Brighton Hospital, on account of a compound fracture of the leg. Primary amputation in the upper third. Recovery. *Case* 45.—A lad, aged 19, under the care of Mr. Macaulay, in the Leicester Infirmary, on account of diseased tarsus. He was the subject of phthisis, and had also strumous enlargement of the glands in the neck. It was not considered warrantable to attempt any conservative operation. Amputation in upper third. Recovery. *Case* 46.—A man, aged 64, under the care of Dr. Wright in the Cheltenham General Hospital, on account of a compound fracture just above the ankle. Secondary amputation was performed one month after the accident, in consequence of the failure of strength from profuse suppuration. Slow recovery followed the operation. *Case* 47.—A man, aged 39, of good health, under the care of Mr. Benfield in the Leicester Infirmary, one leg having been crushed in a railway accident. Primary amputation below the knee. The flaps sloughed to a considerable extent, and a month after the operation a large abscess over the sacrum required to be opened. Recovered. *Case* 48.—A girl, aged 18, in tolerable health, under the care of Mr. Fearn, in the Derby Infirmary, on account of diseased ankle. Amputation through the lower third of leg. Recovery. *Case* 49.—A healthy man, aged 32, under care in the Derby Hospital, on account of compound fracture of the leg in a railway accident. Primary amputation. Recovery.

Case 50.—A boy, aged 14, under Mr. Gregory's care, in the Sheffield Infirmary, on account of diseased bones of the foot. Amputation. Recovery. *Case* 51.—A man, in good health, under the care of Mr. Poppleton, in the Bradford Infirmary, on account of crushed leg. Primary amputation just below the knee. The flaps sloughed. Recovery. *Case* 52.—A healthy lad, aged 15, under the care of Mr. Hey, in the Leeds Infirmary, on account of severe injury to the leg. Primary amputation just below the knee. Recovery. *Case* 53.—A woman, aged 34, much reduced by long suppuration, under the care of Mr. Teale, in the Leeds Infirmary, on account of diseased ankle-joint. Amputation. Recovery. *Case* 54.—A man, aged 65, under the care of Mr. Hey, in the Leeds Infirmary, on account of dry gangrene of the foot. Amputation through the leg. Low delirium followed, attended with diarrhœa. Death on the twelfth day. *Case* 55.—An emaciated girl, aged 13, under care in the Bradford Infirmary, on account of strumous disease of the foot and ankle. Amputation in lower third of leg. Death from exhaustion 75 hours after the operation. No autopsy. *Case* 56.—A man, aged 48, under the care of Mr. Jackson, in the Sheffield Infirmary. Disease of the ankle and tarsus had existed for three or four years, and had greatly reduced his strength. Amputation through the leg. Death, from sloughing of the stump, on the fifth day. *Case* 57.—An adult male, under the care of Mr. Huntingdon, in the Hull Infirmary, on account of a compound fracture of the leg, involving the ankle-joint. Primary amputation. Gangrene of the stump followed, and death occurred on the fourth day. *Case* 58.—A man, aged 56, under the care of Mr. Fearn, in the Derby Infirmary, on account of disease of the os calcis. Excision of the whole bone was performed. Sloughing followed, and at the end of three weeks amputation below the knee had to be performed. Death on the eighth day from hectic and diarrhœa. No autopsy. *Case* 59.—A man, aged 31, was admitted under the care of Mr. Johnson, into the Derby Hospital, having been crushed by a fall of stone. Four teeth, with their alveolar process had been knocked out of the upper jaw; the lower jaw was broken. There was injury to the right elbow, fracture of several ribs, and a severe compound fracture of the left leg. Primary amputation of the leg was performed. On the eighteenth day, secondary hæmorrhage occurred, which could only be controlled by pressure above the origin of the profunda. Ligature of the common femoral was performed. No bleeding occurred afterwards, and the stump went on fairly, but no reparative action was visible either about the wound in the thigh, or in the lower jaw. Death took place on the thirtieth day, having been preceded by delirium and diarrhœa. At the autopsy, abscesses in both lungs were found; there was also softening of the brain, and evidences of arachnitis. Six ribs had been fractured. *Case* 60.—A man, aged 40, of full habit, was admitted into the Derby Hospital, under the care of Mr. Fearn, on account of a compound fracture of the leg. Primary amputation. Erysipelas followed, and abscesses formed in the thigh. On the twenty-seventh day an attack of hæmorrhage occurred, so profuse that he died an hour afterwards.

Of the Upper Extremity.— *Case* 74.—A woman, aged 49, under Dr. Page's care, in the Cumberland Infirmary, on account of diseased wrist-joint. The disease involved the whole carpus, and had resisted much treatment. Amputation through the forearm. Recovery. *Case* 75.—A man, aged 48, under the care of the Mr. Fearn, in the Derby Hospital on account of diseased elbow. The disease had existed several months, and had followed an injury. Amputation through upper arm. Recovery. *Case* 76.—A boy, aged 10, under the care of Mr. Wright, in the Nottingham General Infirmary, on account of a compound fracture involving the elbow-joint. Primary amputation through lower third of humerus. Recovery. *Case* 77.—A healthy man, under the care of Mr. Thomas Wright, in the Nottingham General Infirmary, his forearm, elbow, and arm having been crushed by the wheel of a heavily laden wagon. Primary amputation of upper third of humerus. Recovered. *Case* 78.—A healthy man, aged 21, under the care of Mr. Stubbs, in the Liverpool Royal Infirmary, on account of diseased elbow. Amputation through the arm. Recovery. *Case* 79.—A boy, aged 14, admitted, under Mr. Hughes's care, into the Staffordshire General Infirmary, the arm having been torn off about four inches below the shoulder-joint. The amputation consisted in sawing away the projecting bone. Recovered. *Case* 80.—A woman, aged 22, under the care of Mr. Blaker, in the Brighton Hospital, on account of diseased carpus. Her health was giving way. Amputation through the forearm. Recovery. *Case* 81.—A man, aged 56, in good health, was admitted under the care of Mr. Paget, into the Leicester Infirmary, having sustained a compound dislocation of the elbow. Reduction was affected; but violent inflammation followed, and sloughing in parts. Amputation on the twelfth day. Recovery. Very profuse bleeding had occurred at the time of the accident. *Case* 82.—A lad, aged 16, under the care of Mr. Huntingdon, in the Hull Infirmary, in consequence of his arm having been torn off by a rope. Amputation at the shoulder-joint. Recovery. *Case* 83.—A healthy man, aged 64, under care in Addenbrooke's Hospital, on account of crushed hand. An attempt was made to save part of the hand; but suppuration followed, and the man's health failing, amputation just below the elbow was performed three weeks after. Recovered. *Case* 84.—A healthy man, aged 41, admitted into Addenbrooke's Hospital, having had his forearm and hand crushed by machinery. Primary amputation just below the elbow. Recovered. *Case* 85.—A man, aged 35, under the care of Dr. Nimmo, in the Dundee Royal Infirmary, his forearm having been shattered in a mill-accident. Amputation just below the elbow. Recovered. *Case* 86.—A lad, aged 18, under the care of Mr. Husband, in the York County Hospital, on account of crushed forearm and elbow. Amputation through the upper arm. Recovered. *Case* 87.—A boy, aged 14, under Mr. Jackson's care, in the Sheffield Infirmary, on account of diseased elbow. Amputation. Recovery. *Case* 88.—A man, aged 33, under Mr. Jackson's care, in the Sheffield Infirmary, on account of diseased elbow. Amputation. Recovery. *Case* 89.—An adult male, under Mr. Gregory's care, in the Sheffield Infirmary, on account of diseased elbow. Amputation. Recovery. *Case* 90.—A lady, aged 19, under Dr. Bennett's care, in the Bradford Hospital, on account of crushed forearm. Primary amputation below the elbow. Recovery. *Case* 91.—A man, aged 24, under Mr. Blaker's care, in the Sussex County Hospital, on account of compound fracture of the bones of the forearm. Primary amputation below the elbow. The flaps sloughed. He was unconscious for eight days after the operation, in consequence of concussion of the brain. Recovered. *Case* 92.—A boy, aged 14, under Dr. Nimmo's care, in the Dundee Royal Infirmary, his right arm having been torn off above the elbow. Primary amputation in the upper arm. Recovery. *Case* 93.—A girl, aged 16, under Dr. Nimmo's care, in the Dundee Royal Infirmary, on account of laceration of the forearm. Primary amputation below the elbow. Recovery. *Case* 94.—A woman, aged 22, under Mr. Husband's care, in the York County Hospital, on account of severe injury to the arm. Primary amputation at the shoulder-joint. Recovery. *Case* 95.—A man, aged 50, under Mr. Hey's care, on account of injured hand. The parts had healed, but the member saved was so useless that, at the man's own request, amputation through the forearm was performed. Recovered. *Case* 96.—A healthy man, aged 64, under care in the Kent and Canterbury Hospital, on account of compound fracture of the bones of the forearm. Primary amputation. Recovery. *Case* 97.—A man, aged 24, under the care of Mr. Husband, in the York Hospital, on account of gunshot injury to the hand. An attempt was made to save the hand, but sloughing followed, and secondary amputation below the elbow was requisite. The stump sloughed, secondary hæmorrhage took place, and death ensued three days after the operation. *Case* 98.—A strong old man, aged 75, under the care of Mr. Teale, in the Leeds Infirmary, on account of dry gangrene of the hand and forearm, which had existed a fortnight. There was a line of demarcation just below the elbow. Amputation above the elbow. Death on the tenth day. *Case* 99.—A man, aged 21, under Mr. Hey's care, in the Leeds Infirmary. Primary amputation through the forearm. Death from cerebral disease on the twenty-eighth day. *Case* 100.—An infant, aged 22 months, under Mr. Teale's care in the Leeds Infirmary. Primary amputation through the middle of the arm. Death in convulsions on the following day. *Case* 101.—A man, aged 52, under the care of Mr. Barber, in the Sheffield Infirmary on account of a medullary growth in the forearm. Amputation through the arm. Death from exhaustion on the third day. *Case* 102.—A man, aged 66, under the care of Dr. Masfen, in the Staffordshire General Hospital. The hand and wrist had been disorganized by phlegmonous erysipelas, and his

health was fast giving way. Amputation through the forearm. Secondary hæmorrhage to considerable amount followed, but was arrested by styptics. Death from pyæmia three weeks after the operation. *Case* 103.—A boy, aged 15, under the care of Dr. Masfen, in the Staffordshire General Hospital, on account of a crushed hand. Gangrene followed, and secondary amputation through the lower third of forearm was performed three weeks after the accident. Death, with symptoms of pyæmia, occurred on the fifteenth day. At the autopsy, the shaft of the ulna was found separated from its periosteum, and there were small purulent deposits in its medullary cavity. The elbow joint contained a quantity of ill formed pus, and there was a large abscess in the adjacent cellular tissue. No purulent deposits in any other organ. *Case* 104.—A boy, aged 14, was admitted into the Cumberland Infirmary, under the care of Dr. Page, on account of a compound and comminuted fracture of the arm. Primary amputation at the shoulder joint. Several scalp wounds existed, but there was no fracture. Everything progressed favourably until the seventh day, when symptoms of trismus supervened. Tetanus followed, and he died within forty-eight hours of the first stiffness of the jaw. *Case* 105.—A healthy girl, aged 15, under the care of Mr. Hey in the Leeds Infirmary, on account of compound fracture of the arm. Primary amputation just below the head of the humerus. She recovered so far as to be able to go about, when acute pleurisy supervened, and resulting in pneumothorax, caused death nine weeks after the operation.

Of the Foot.—*Case* 61.—A healthy labourer, aged 35, was admitted into Addenbrooke's Hospital, his foot having been crushed by a railway train. Primary amputation by Chopart's method. Recovery with a good stump. *Case* 62.—A healthy man, aged 40, under care in Addenbrooke's Hospital, the toes of one foot having sloughed after frost-bite. Amputation through the metatarsal bones. Recovery.—*Case* 63.—A girl, aged 16, in good health, under Mr. Hoffman's care, in the Margate Infirmary, on account of diseased tarsus. Chopart's amputation. Recovered. *Case* 64.—A girl aged 17, in very delicate health, under Mr. Hoffman's care in the Margate Infirmary. Chopart's amputation. Doing well. *Case* 65.—A girl, aged 9, under Mr. Blaker's care, in the Brighton Hospital, on account of diseased tarsus. Amputation at the ankle-joint. Recovery, with a good stump. *Case* 66.—A man, aged 60, under the care of Mr. Furner, in the Brighton Hospital, on account of ulceration after sloughing of the toes from frost-bite. Lisfranc's amputation. Recovered. After the stump had healed, ulceration of the cicatrix again took place. *Case* 67.—A man, aged 54, under Mr. Husband's care, in the York County Hospital, on account of crushed foot. Primary amputation through the metatarsal bones. Recovered. *Case* 68.—An adult male, under the care of Mr. Barber, in the Sheffield Infirmary, on account of carious disease of the tarsal bones. Chopart's amputation. Recovery. *Case* 69.—An adult male, under the care of Mr. Gregory, in the Sheffield Infirmary, on account of diseased tarsus. Lisfranc's amputation. Recovery. *Case* 70.—A lad, aged 15, under the care of Mr. Barber, in the Sheffield General Hospital, on account of diseased tarsus. Chopart's amputation. Recovery. *Case* 71.—A woman, aged 65, in fair health, under the care of Mr. Shaw, in the Durham Hospital. The toes and metatarsus of the left foot had been crushed by a railway wagon. Chopart's amputation was performed a few hours after the accident. Under treatment. *Case* 72.—A lad, aged 18, under Mr. Teale's care, in the Leeds Infirmary, the front part of the foot having been crushed by a railway accident. A primary Chopart's amputation was performed. Recovered, and "had a remarkably neat and useful stump." *Case* 73.—A man, aged 21, under the care of Mr. Paget in the Leicester Infirmary. He was in fair health, but had suffered from disease of the tarsal bones for nearly two years. Amputation at the ankle-joint was performed; the malleoli, etc., being cut away by the saw. The front of the posterior flap sloughed on the second day. On the seventh, symptoms of trismus had supervened, and death followed four days later. At the autopsy it was found that both the abdominal recti had been torn across near their lower attachments.

EXCISION OF JOINTS.

Case 1.—A man, aged 62, under the care of Mr. Page, in the Cumberland Infirmary. For two years he had suffered from disease of the wrist-joint; the soft parts were greatly swollen, and many sinuses led down to diseased bone. He could move the fingers very slightly. The operation consisted in the removal of the whole of the carpal bones, and of about half-an-inch of the extremities of the ulna and radius; and was performed by making two longitudinal incisions over the back of the joint, and then drawing aside the tendons. Healing went on favourably, and excepting two sinuses which remain, is now complete. As yet, however, the man has not much use of the hand.

Case 2.—A girl, aged 15, under Mr. Hughes's care, in the Staffordshire General Hospital, on account of diseased elbow-joint. The disease had existed seven years, and entirely disorganised the joint. Strumous periostitis had occurred in connexion with various other bones. There were several large ulcers about the joint, and much pain was experienced. Excision of the extremities of three bones. Not an ill symptom followed the operation. She recovered well, and will have a useful arm.

Case 3.—A woman, aged 21, under the care of Mr. Booth Eddison, in the Nottingham Infirmary, on account of diseased knee-joint. The disease had existed two years; there were sinuses leading into the joint, and the woman was emaciated and feeble. The articulating extremities of the femur and tibia (both in a state of caries) were excised, the patella being left. She bore the immediate effects of the operation well; but very profuse suppuration was subsequently set up from the wound. Death from diarrhœa and exhaustion followed on the twenty-eighth day. The autopsy showed ulceration in the small intestine.

Case 4.—A delicate girl, aged 20, under the care of Mr. Teale, in the Leeds Infirmary, having suffered for several years from strumous disease of the elbow-joint. Excision of the extremities of the three bones was performed. Rather profuse bleeding followed four hours after the operation, and required the application of the actual cautery for its control. The subsequent progress was very good; and when she left the Hospital the movements of the joint were almost perfect.

Case 5.—A healthy girl, aged 20, under the care of Mr. Teale, in the Leeds Infirmary, having suffered from disease of the elbow-joint for one year. Excision of the extremities of the three bones. Two abscesses in the arm, which formed about a month after the operation, delayed the healing; but within four months of the operation cicatrisation was complete, and the movements almost perfect. She was able both to sew and write with the hand.

Case 6.—A man, aged 43, was admitted, under Mr. Teale's care, into the Leeds Infirmary, having sustained severe injuries in a fall. The right elbow-joint was laid open, and three ribs on the right side were fractured. Primary excision of the joint was performed. Death followed on the ninth day, having been for twenty-four hours preceded by jaundice. At the autopsy a large quantity of coagula were found in the abdomen, and there were several large rents in the liver, which had been united by the adhesive process.

Case 7.—A boy, aged 12, under the care of Mr. Humphry, in Addenbrooke's Hospital. He was pale, but not unhealthy; and the disease of the knee-joint from which he suffered was in a chronic state. Extension under chloroform was first tried in order to get it into a better position. Subsequently a recurrence of inflammation, and of the tendency to retraction, made it evident that the limb would remain useless unless something more were done. Excision of the joint was accordingly performed. The patella, being found anchylosed to the femur, was left. The joint had been wholly destroyed, and the bones were connected by firm fibrous tissue. No ill symptoms resulted, and the bones were firmly united in about two months.

Case 8.—A girl, aged 18, under the care of Mr. Gisborne, in the Derby Infirmary, on account of disease of the elbow-joint, of eight months' duration. The soft parts were much swollen, and several sinuses led into the joint. Excision of the extremities of the three bones was performed. The parts healed well, and the thickening subsided. Two sinuses remained open at the time of the report, but the arm was strong, and her general health very greatly improved.

Case 9.—A boy, aged 9, under the care of Mr. Fearn, in the Derby Infirmary, on account of caries of the ulna. Its upper third, including its articulation with the ulna and radius, was removed. The radius was subsequently dislocated forwards by the biceps. The parts have healed, and he possesses fair power of extension and flexion.

OPERATIONS FOR CARIES OF BONE.

Case 1.—A boy, aged 8, under the care of Mr. Curling, in the Margate Sea-bathing Infirmary, on account of diseased tarsus. An incision was made over the cuboid bone, and the greater part of it removed in a softened, carious state. Doing well. *Case* 2.—A boy, aged9, under the care of Mr. Curling in the Margate Sea-bathing Infirmary, on account of caries of the os calcis. The diseased parts of the bone were removed by gouging. Doing well. *Case* 3.—A strumous boy, aged 11, under the care of Mr. Hughes, in the Staffordshire General Hospital, on account of necrosis in the centre of the posterior half of the os calcis, with carious softening of the adjacent bone. The posterior half of the bone was excised. Recovered. *Case* 4.—A man, aged 18, under Mr. Husband's care in the York Hospital, on account of caries of the tibia. The ulcerated edges of the skin were reflected, and the diseased bone gouged out. Recovery. *Case* 5.—A man, aged 32, under the care of Mr. Long, in the Liverpool Royal Infirmary, on account of old-standing caries of the shaft of the tibia. There was no actual necrosis. Nearly the whole of the shaft was at different times removed by the gouge. The state of things is much improved, but disease still exists at some parts. *Case* 6.—A delicate lad, aged 15, under Mr. Fearn's care, in the Derby Hospital, on account of caries of the os calcis, of many months' standing. Three-fourths of the bone, in a diseased state, were excised by incision over its outer side. Recovery.

TREPHINING FOR ABSCESS IN BONE.

Case 1.—A healthy girl, aged 18, under the care of Mr. H. Curling, in the Margate Sea-bathing Infirmary. She complained of deep-seated and severe pain in the head of the tibia, which had followed fever seven years ago. It was subject to nocturnal exacerbations. The trephine was employed, and a small circumscribed abscess opened. The pain ceased after the operation, and the cavity soon filled up.

ENUCLEATION OF A FIBROUS TUMOUR OF THE UTERUS.

In this case a woman, aged 53, under Mr. Teale's care, in the Leeds Infirmary, had a large fibrous tumour removed by incision, per vaginam, from the posterior wall of the uterus. She recovered well. For details, see *Medical Times and Gazette*, March 22, 1856, page 283.

REMOVAL OF NON-MALIGNANT TUMOURS.

Case 1.—A woman, aged 33, under Mr. Teale's care, on account of an almost solid bursa, in front of the patella. Excision. Recovery. *Case* 2.—A woman, aged 57, under the care of Mr. Husband, in the York Hospital, on account of a solid bursa in front of the patella, the size of an orange. Excision. Recovery. *Case* 3.—A man, of anæmic appearance, under the care of Mr. Craven, in the Hull Infirmary, on account of a fungating and bleeding tumour on the thigh. Excision. Recovery. The disease was not thought malignant. *Case* 4.—A woman, aged 22, in Addenbrooke's Hospital, on account of an epulis, of two years' growth, involving the last bicuspid, and first molar of the left side. The tumour, with a portion of the alveolar process, was excised. Recovery. *Case* 5.—A woman, aged 42, under the care of Mr. Hey in the York Hospital. A tumour of doubtful nature, the size of a fist, was excised from over the scapula. Recovered. *Case* 6.—A healthy girl, aged 18, under care in the Kent and Canterbury Hospital, on account of a tumour of congenital origin, occupying the infra spinous fossa of the right scapula, and extending on the back of the arm. It was ill defined, and appeared to consist in part of cutaneous hypertrophy. After excision, its deeper parts were found to consist of cystic formation. The wound healed well. *Case* 7.—A woman, aged 56, under Mr. Paget's care in the Leicester Infirmary, on account of a very large fatty tumour between the breasts. After excision it weighed four pounds. Recovered. *Cases* 8, 9, 10, 11, 12, 13, and 14.—In these fatty tumours were removed from different parts of the body. In all the patients recovered well. *Cases* 15, 16, 17.—In these large encysted tumours were removed. All the patients did well. *Case* 18.—A woman, aged 30, under Mr. Jackson's care in the Sheffield Infirmary, on account of an encysted tumour of small size on the back of the neck. It was excised, and tetanus supervened four days afterwards, and caused death on the following evening. Choroform inhalations were employed, and appeared to diminish the severity of the pain, but did not in any way arrest the disease. *Case* 19.—A healthy lad, aged 16, under care in the Kent and Canterbury Hospital, on account of an epulis involving the last bicuspid and first molar tooth in the lower jaw. It was of a year's duration. The tumour, with the teeth and a portion of the jaw, was excised. Recovery.

EXCISION OF MALIGNANT TUMOURS.

Case 1.—A healthy man, aged 52, under the care of Mr. Hey in the Leeds Infirmary, on account of a fungoid growth springing from a cavity in the lower end of the humerus. A previous operation had been performed, but the disease quickly returned. The man was still in pretty good health. Mr. Hey gouged out the diseased formation. Death, preceded by symptoms of pyæmia, followed on the ninth day. At the autopsy deposits of pus were found in both lungs. *Case* 2.—A woman, aged 53, under the care of Mr. Page in the Carlisle Infirmary, on account of a tumour over the middle of the upper border of the scapula. It had existed for eighteen years, but had rapidly increased during the last few months, and had been very painful. It was about the size of an orange, and firmly adherent to the integument, but movable on the subjacent muscle. It was removed by a careful dissection, and was found to be "evidently of malignant character." Within three weeks of the operation a hard nodule formed in the edge of the cicatrix, which was followed by others. Two weeks later these were excised, and the actual cautery applied. A third growth, however, soon appeared, and was treated by various escharotics, which proving ineffectual, a third excision was performed five months after the first. Within a month, however, the nodular growths in the cicatrix had re-appeared. The tumour is at present the size of a child's head, and liable to frequent bleedings; but her general health has not suffered so much as might have been expected. *Case* 3.—A man, aged 75, under the care of Mr. Husband in the York Hospital, on account of epithelial cancer involving almost the whole of the lower lip. A portion of the lip had been removed sixteen years before for the same disease. Excision. Recovery. *Case* 4.—A woman, aged 54, under Mr. Blaker's care in the Brighton Hospital, on account of epithelial cancer of the right labium. Excision. Recovery. *Case* 5.—A man, aged 57, under Dr. Nimmo's care in the Dundee Royal Infirmary, on account of a large cancerous growth in the cheek. It was excised, the incisions extending into the lips. The wound not having entirely healed, a second operation for its closure is intended. *Case* 6.—A man, aged 68, in good health, under Mr. Paget's care in the Leicester Infirmary, on account of an epithelial cancer of the lip, of three years' duration. Excision. Recovery.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 107.—Hypertrophy of the Heart.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—The following was stated in the *Medical Times and Gazette* of April 12, on the authority of M. Brachet, to be very beneficial in hypertrophy of the heart:—

"Acetatis plumbi gr. xxx.; extracti digitalis gr. xv. In twenty pills; one, gradually increased to three, night and morning."

Is this corroborated by English physicians? What are the results in either England or France? Is it applicable to valvular disease? Might not iodide of lead be preferable to the acetate? I am, &c. X. X.

No. 109.—Tar in Typhoid Fever.

Sir,—In your Number of the 12th instant, I read a report of M. Chapelle having administered tar with success in typhoid fever. I have no doubt of the truth of this statement, from the benefit I have witnessed from the use of tar in similar cases. In the year 1845 I first began to employ tar in various forms of cutaneous disease, and the result of such treatment was embodied in a paper read before the Westminster Medical Society, published in their proceedings, and republished

in Braithwaite's Retrospect. Since this time I have employed the same remedy in various forms of disease, more especially those attacking the skin and mucous membranes. Of those of the former class I would mention psoriasis palmaris, acne punctata, eczema; of the latter, chronic bronchitis, diarrhœa, and gonorrhœa. During the last two epidemic visitations of cholera in 1848 and 1854, I employed scarcely any other medicine in cases of premonitory and choleraic diarrhœa, and hardly a case went into collapse when this remedy was used. In the return paper to the Board of Health fifty cases treated in this manner were inserted; and, although no notice was taken of this mode of treating cholera in the published list of the Board, I am happy to find my own experience supported by that of so celebrated a man as M. Chapelle. Tar was administered in the form of capsule containing 10 minims; pills made by mixing it with flour to a proper consistence. The capsule is decidedly the best form, as the stomach cannot easily reject it; vomiting occurred in several cases immediately after the capsule had been swallowed without dislodging it, and the beneficial effect was soon apparent. In the mortality table published this day I perceive mention is made of choleraic diarrhœa as the cause of death in one or two cases. I trust this will be a sufficient reason for directing attention to a remedy which has not yet had a fair trial, and has this advantage, that it is, at any rate, within the reach of the poorest person. I am, &c.

J. Wetherfield.

1, Henrietta-street, Covent Garden, April 24, 1856.

No. 110.—Cancerous Ulcers.

Sir,—In a case of Cancerous Ulcer, I find, after a variety of applications, the following lotion to answer extremely well:

℞ Plumb. acetat. ʒij. ad ʒj.
Creosoti ♏ xl. ad ʒj.
Aq. fluvial. ʒxij.
M. Ft. lot.

The acetate of lead and the creosote form a uniform mixture, and there is no separation of the latter ingredient. A piece of lint soaked in the lotion, and applied to the ulcer twice or three times a-day, is my mode of applying it. The whole is covered by an oiled silk. I am, &c.

John Valentine, M.R.C.S.E. and L.A.C.

Somerton, Somerset, April 23, 1856.

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Medical Times & Gazette.

SATURDAY, MAY 3.

A SCHEME OF MEDICAL REFORM.

In our Leading Article last week, we briefly alluded to some of the anomalies existing in our Profession, arising out of the imperfect, and often discordant, systems now pursued in Medical education. Instead of harmonious co-operation towards one great end, we find our Medical Schools and Licensing Bodies exhibiting an injurious rivalry towards one another, alike detrimental to the Student and the Practitioner, and to the Public to whose wants the latter is to minister. Yet in the chaotic regulations of our different Colleges and Universities and Halls, there exist the elements of good; and, if all these bodies would only consent to waive some of their exclusive privileges for the public benefit, and abandon some obsolete, though time-honoured monopolies, the Medical Reform question might be speedily settled.

In the first place, we deem it of the highest importance that all the Medical Corporations should be subjected to some Central authority, which should be empowered to superintend and to regulate the course of education pursued or recommended by each, with a view to procure uniformity in the different plans of Medical education and examination. All the schemes of Medical Reform have made this central authority an essential and primary point, and without it, we conceive that it would be useless to attempt any improvement in Medical legislation. So long as one Corporation requires its *alumni* to pursue Medical science for five or six years, while another is satisfied with requiring three or four; so long as one demands an extensive knowledge on the part of the candidate of a dozen subjects in Medical and general science, and another will grant a licence after examination in one or two; so long as one grants its permission to practise for ten pounds, and another demands thirty, and a third demands fifty, or sixty, or a hundred, for the same privilege;—so long as these anomalies are allowed to exist, so long will envy and jealousy distract the minds of the Practitioners of Medicine, and the question of Medical Reform remain unsettled. Those who clamour most loudly for uniformity of practice and reciprocity of privileges cannot for a moment wonder if the man who has honestly and laboriously and expensively risen from step to step in the scale of Professional eminence should feel himself aggrieved if he is compulsorily thrown upon a level with another man who has been satisfied with the minimum of qualification which the law allows. Any attempt, therefore, to melt down all the members of the Profession in one crucible, without any reference to education or attainments, we conceive to be most absurd and most unjust. It is perfectly true, that a man with one qualification may, by the force of intellect and genius, be superior to the man who possesses three or four; but such cases are necessarily exceptional; and the conclusion is almost irresistible, that he who has procured all the qualifications which it was in his power to obtain by study and examination, is more deserving of honour and reputation than he who has done nothing more than pass a single examination, and that ordeal requiring, perhaps, a minimum of labour.

Notwithstanding all that has been written and spoken against the division of the Profession into different grades, we cannot admit that we have ever been convinced by the arguments adduced; and inasmuch as we cannot find that any injury accrues to the public by the division of clergymen into Bishops, and Rectors, and Curates; or of lawyers into Judges, and Barristers, and Attorneys; or of soldiers into Generals, and Colonels, and Captains, so neither can we find any valid argument against the division of our Profession into Consulting-Practitioners, and General Practitioners. But just as every Captain may become a General, and every lawyer a Judge, and every curate a Bishop, so should any General Practitioner be enabled to become a Consulting-Surgeon or a Consulting-Physician, if his tastes, or his talents, or his chances of success should induce him to aspire to the highest rank. But we would make the passage from the lesser to the higher ranks of our Profession to depend upon the exhibition of proficiency in Medical Science, and not upon favour, or accident, or purchase, or patronage.

We would, therefore, propose that the successive steps in

our Profession should be gained by a series of progressive examinations, beginning with general literature and elementary science, and terminating with practical Medicine and Surgery. We entirely agree with those who think that all Practitioners of Medicine should enter the Profession by one portal, but we totally dissent from those who think that that portal should be the *only* and the *final* one. We cannot by any means assent to the doctrine, that such an examination as that of the London College of Surgeons, which comprises only Anatomy and Surgery, (and not much of these,)can constitute a sufficient qualification for the successful practice of Medicine and Surgery; nor do we believe, on the other hand, that the examination at the College of Physicians, excluding, as it does, Surgery and Midwifery, can be considered, *per se*, as a full test of general Professional ability. We would, therefore, wish that every Surgeon should know something of Medicine, that every Physician should know something of Surgery; and that both should have received the education of scholars and gentlemen. The General Practitioners should, of course, be educated in both branches, as they are, or ought to be, at present; and the Surgeon or the Physician should hold a somewhat superior rank, not because he knows *less* than the General Practitioner, (as is now sometimes the case,) but because he knows *more*, and because he has devoted himself for a longer period to the scientific pursuits of Surgery or Medicine.

The one portal through which we would wish the whole Profession to pass in the first instance, is an examination in general literature and science. We conceive it to be absolutely necessary, in the present era of the diffusion of knowledge, that Practitioners of Medicine should exhibit at least some proficiency in elementary education; and we do not know how that degree of proficiency can be estimated, except by examination. But inasmuch as we would not desire to introduce such a sudden and violent change as to disturb existing arrangements, we should propose, that, for the first two or three years, only a moderate demand should be made upon the students' capabilities, and that a power of translating some Latin and Greek authors, and an acquaintance with arithmetic or logic, should be considered sufficient to entitle a young man to enter upon a Medical career; but we are strongly of opinion, that without such an amount of general information, a course of Medical study cannot be conducted with profit; and the youth should be sent to an elementary school before being allowed to attend Medical Lectures.

We would then propose that the pupil should commence the study of his Profession by making himself acquainted with Anatomy, Chemistry, Pharmacy, Materia Medica, and Botany, and, after a certain definite period, should present himself for examination on those subjects; and if he failed in passing, then he should return to the schools until he had gained sufficient knowledge to ensure success.

After this preliminary or *little-go* examination, he should commence attendance on Lectures upon Medicine, Surgery, and Midwifery, together with the Clinical study of Disease at the Hospitals, and such further pursuit of Chemical Studies as are connected with Physiology, Pathology, Forensic Medicine, and Hygiene. At the conclusion of a definite period of such studies, he should present himself to a mixed Board of Examiners in Medicine, Surgery, and Midwifery, and should obtain a licence to practise in those branches—or, in other words, to act as a General Practitioner.

We would have all the Members of the Profession to go through such an ordeal: the progressive examinations which we have described tend to keep the mind of the Student continually and usefully occupied, while the division of the examination into three branches enables him with more success to grapple with the numerous departments of professional and general knowledge than when he is compelled (as at present, in some cases,) to cram into his brain at one time, and unfold in one or two hours, a heterogeneous mass of Latin, Chemistry, Botany, Materia Medica, Pharmacy, Anatomy, Physiology, Medicine, and Midwifery.

Having thus successfully pursued his career in the general principles of Medicine and Surgery, the Licentiate should be permitted to practise his Profession under the protection of the laws of the country. If he aspired to take a higher rank, and to become a Consulting-Surgeon or a Consulting-Physician, then he should superadd to his previous studies a more extensive acquaintance with the practical or theoretical details of Surgery or Medicine; and, after the lapse of a certain number of years, should be allowed to present himself for special examination as a Physician or a Surgeon at the respective Colleges of Physicians and Surgeons. Thus the terms "Physician" and "Surgeon" would be the highest Medical titles of honour given after a careful examination of Candidates, and the distribution of this honour ought to be very cautiously guarded. Such distinctions being obtained by merit would excite no jealousy, but would, on the contrary, command general respect.

The scheme which we have now sketched, we submit to the attention of the Legislature and of the Profession. We are convinced of the justice of the principles on which it is founded; and, if the Government would exert itself, we have no doubt that it might pass a Medical Reform Bill which, although it might not and could not satisfy all, yet would tend to place the Profession upon a secure basis. Mr. Headlam's Bill aimed at pleasing all the Medical Corporations, and succeeded in pleasing hardly any; Lord Elcho's Bill is defective in the same particular. It remains for some powerful mind to take up the subject, and, while respecting the views of the different Corporations, to take care not to allow selfish interests to obstruct the onward movement of reform in our Profession. The statesman who will now legislate on this difficult question will find obstacles melt away if he pursues an honest and straightforward course, and his labours will be rewarded by the lasting gratitude of the Medical community.

THE WEEK.

We observed, in our number for April 5, on the dangerous practice of conveying fever patients in street cabs; and we now add to this the fact of very many of these public conveyances being systematically employed for the conveyance of the dead bodies of children to the various cemeteries. This becomes a subject of some importance when we take into consideration the numbers of bodies which have to be buried in the course of a year, and the diseases which caused death. It appears from the 16th Report of the Registrar-General that 24,713 children die per annum under 5 years of age, in London; and that, of this number, 8567 die of zymotic diseases; 143 of small-pox, and 478 of typhus; and also, bearing in mind the quality of the coffins into which a great proportion of these bodies are put,—their patency for miasma to be given off,—we cannot but think that the practice ought at once to be met by the most stringent legislative checks. If conductors of omnibuses are to be protected by magistrates for refusing a fare, because the would-be traveller was of "enormous proportions," so that he would rob other passengers of their due sixteen inches, surely cabmen ought to be prohibited from taking pestilential corpses into their vehicles, which may rob their next fare of health, if not of life.

In a recent leading article we alluded to the pollution of London air, arising from the exhalations from the surface of the earth, covered as the streets are with a layer of animal

refuse, which is imperfectly removed by seavenging, profusely watered to lay the dust, and putrefying under the rays of the sun. The true remedy for this state of things, as well as for the dust which is so much complained of, is better cleansing; and we need scarcely say that the most efficient mode of cleansing any paved surface, is the application of liberal jets of water. As for streets that are Macadamized, we leave them out of the question, as this mode of forming a surface is obviously unfit for thoroughfares where there is the greatest quantity of traffic, and the greatest need of cleanliness. But for all the paved streets, for all the ordinary paved footways by the sides of streets, for all closed paved courts, alleys, and *culs-de-sac*, what a refreshment and comfort would be afforded by a daily copious ablution? Nay more, the fronts of the houses should be sluiced; and thus cleanliness, coolness, and some movement of air, even in the most languid and sultry weather, and the more rapid discharge of the contents of sewers, would be ensured. All these questions will be found discussed in the Board of Health Report on the Supply of Water to the Metropolis, 1850; but, besides other causes, the expense and difficulty of procuring a sufficient supply of fresh water have been hitherto sufficient to hinder any such scheme from being carried into full effect. Mr. Francis Fuller, in a letter in the City article of the *Times* of Tuesday, proposes to bring to London pure sea-water, to serve for various purposes for which pure water is unnecessary; and he states that a rate of one penny per pound would pay the expenses, and that this fluid, within eighteen months, might sparkle from fountains in every street of the Metropolis, might supply baths and marine vivaria, and cleanse our houses and streets. We do not profess to discuss the subject in an engineering or financial point of view; but we thoroughly concur in the idea, that it is intrinsically worth grave consideration.

Her Majesty's Government are desirous of erecting a Military Hospital at Winchester, and have met with some opposition among the inhabitants. One of these gentlemen wound up an harangue by stating, that in his judgment, "It would be condensing a large mass of matter, creating a focus for the diffusion of poisonous miasma, sufficient to engender a disease of a very alarming character, and ultimately to carry infection through every nook and corner of the city!" The Medical gentlemen of the city did not concur in this string of inflated and alarming vaticinations.

The trial of William Palmer, on various charges of murder, has, at length, been definitively fixed for the 14th of the present month, at the Central Criminal Court. It was said, that there was some intention on the part of the prisoner's advisers to attempt to postpone the trial until the autumn assizes, and to carry the case into one of the provincial towns; but, if such an intention ever existed, it has been abandoned. We have received a great amount of information bearing upon this remarkable case; but we have thought it most prudent to withhold the particulars which have come to our knowledge, as we have no desire to pander to a morbid curiosity on the part of the public, and are also exceedingly anxious to avoid doing anything which may interfere with the course of justice. From the arrangements made on both sides we are convinced that the prisoner will have a fair trial, and we reserve our remarks until the conclusion of the proceedings.

We are informed that an intention exists to call a meeting of the newly-appointed Medical Officers of Health, with a view to the organization of that important class of the Profession into a compact and united body. This Association, we understand, has received the sanction of the Board of Health, and we have no doubt that the deliberations of a number of gentlemen engaged in superintending the sanitary condition of the Metropolitan districts will lead to important results in the science of Hygiene. The first meeting is to be held next week, and we heartily wish success to the labours of the Association.

The Nestor of Medicine, Dr. Clutterbuck, has departed this life during the past week, full of years and honour, at the advanced age of 89. We are informed, from authentic sources, that he was born on the 28th of January, 1767, and was married in 1796. His last and fatal illness was a low form of bronchitis, for which, at his own request, he lost a small quantity of blood. We hope to be able to present a short memoir of Dr. Clutterbuck in a future number.

We have received, among many other documents of a similar nature, a preliminary Report on the Sanitary Condition of Shoreditch, by Dr. Barnes, the Medical Officer of Health to that district. We find, in this very able Report, abundant materials for serious reflection upon the sanitary state of several of our Metropolitan parishes. It appears that the parish of Shoreditch, which in the year 1745 probably contained about 17,255 inhabitants, now contains about 125,000, although the area of the parish remains the same, or about one square mile! We are not surprised to find that Typhus Fever is completely localized in this district, and that the deaths from this fearful scourge have lately risen to a very high amount. With this limited amount of space at their disposal, we cannot lay the blame of this mortality at the doors of the Shoreditch Vestry; and we regret that there should be no means for equalizing among the different Metropolitan districts the burdens of pauperism and the duty of preventing disease.

We are exceedingly sorry to find that the Poor-Law Board has decided against the admission of the Medical Officers of Health into the Metropolitan Workhouses, for the purpose of examining and reporting upon their Sanitary condition, without the permission of the Guardians. If the Poor-Law Board had performed this duty themselves, or if the Guardians had shown a proper care in the management of the Workhouses, we should not complain of the decision; but with the recollection of recent notorious cases of neglect and mismanagement before our eyes, we cannot but regret that these buildings are henceforth to undergo no supervision. If a Workhouse is not a public building, what is it? Is it the private property of the Guardians?

REVIEWS.

Diseases of the Heart, their Pathology, Diagnosis, and Treatment. By W. O. Markham, M.D. Pp. 346. London: 1856.

Dr. Markham, who is already favourably known to the Profession by his translation of Skoda's Treatise on Auscultation, has here favoured us with an original work upon the Diseases of the Heart; and, although the subject has been amply treated by Hope, Latham, Bouillaud, and many others, it is far from being exhausted. The great fatality of heart-diseaes, their insidious approach, and the difficulty of treating them, all render this department of Practical Medicine one of the most interesting, and at the same time one of the most intricate, which can engage the attention of the Physician. As Dr. Markham very truly remarks, even the accuracy of modern diagnosis does not help us much in the treatment, for the abnormal sounds with which auscultation makes us acquainted indicate to us at the same time that the mischief is done, and that the application of remedial measures is more or less uncertain.

In reading Dr. Markham's preface, we were almost inclined

to regard him as a confirmed sceptic as to the efficacy of therapeutical measures in cardiac diseases, so despondingly does he speak of the results of the different forms of treatment recommended and practised by our greatest authorities. But, on reading the work itself, our fears were dispelled; and we are bound to admit that his principles of treatment are most judicious, and, though not slavishly modelled upon the dogmas of authority, are generally in accordance with those usually adopted.

The inflammatory diseases of the heart, or, rather, of its membranes, are pericarditis and endocarditis; and with these are connected a long train of serious, troublesome, and fatal disorders, valvular disease, hypertrophy, dilatation, and a host of consecutive maladies. The inflammatory affections being, as it were, the starting-points of the rest, are treated of by Dr. Markham at great length and with great care, inasmuch as upon their early recognition and prompt treatment must depend very much of the successful treatment of the diseases of the heart. Valvular disease in its advanced form, hypertrophy, and dilatation, are incurable maladies; but if the inflamed endocardium can be cured in its very early morbid condition, the subsequent alterations or imperfections of structure may be averted. It is true that the auscultator who gains the earliest information as to the presence of a murmur in the endocardium, is, nevertheless, too late if he has delayed his remedial measures till the actual development of valvular disease; for, however active his treatment may be, it is too often uncertain and unsatisfactory, and the patient lingers through life with damaged valves, even if he is not cut short in his early career. Without waiting, therefore, for the full discovery of the murmur, we should commence our treatment. "When," as Dr. Markham observes, "during, for instance, an attack of acute rheumatism, we suddenly find the heart's action become violent and irregular; its sounds altered in character, though still to be called healthy sounds; præcordial pain, or tenderness on pressure over the heart; high fever, and irregular pulse; in such a case there can be no need to wait for a cardiac bruit to decide our curative proceedings. To anticipate thus the endocardial inflammation, in its early aggression, becomes a proper trial for the skill of the physician."—Page 224.

We find in Dr. Markham's work a thoughtful review of what has been done by previous authors in the same field of inquiry, combined with much judicious observation gathered from his own experience: he startles us with no novel theories, he proposes no striking innovations in practice, but he is thoroughly well acquainted with his subject, has turned it over and over in all its aspects, and gives us his reasons for forming his opinions, either in accordance or in opposition to those of other authors; and although it cannot be said that he has cleared away the difficulties attending the study of Cardiac Diseases, he has yet honestly pointed out wherein those difficulties consist, and has thrown out many hints which may be useful to future investigators.

The Microscope and its Revelations. By William B. Carpenter, M.D. Illustrated by 345 Wood Engravings. Pp. 778. London: 1856.

The Microscope has opened a new world to the philosopher, and has unfolded innumerable truths in the wide region of natural science. The instruments used by our forefathers have been replaced by others presenting the attractions of great cheapness, ingenious mechanism, and easy manipulation; while the great improvements effected in the construction of the lenses have added infinitely to the accuracy and trustworthiness of microscopical observations. It was, therefore, only just that the microscope should have a Manual; and we accordingly find, in the volume before us, a copious explanation of the nature of the instrument itself, and of the objects which it is designed to exhibit. The execution of the work has been entrusted to Dr. Carpenter, and we need not say that it could not have fallen into abler hands; though we regret to find that its appearance has been delayed for some months after the expected period, in consequence of two attacks of severe indisposition with which the respected author has been visited.

The book is divided into chapters, the former of which are devoted to the history of the microscope, the optical principles which it involves, its construction, and its management; the method of preparing, mounting, and collecting objects; and then follow a number of chapters devoted to the examination of the members of the Vegetable and Animal Kingdoms which are too minute for inspection by the naked eye, or the tissues or organs of which elude the unassisted vision. One chapter is set apart for the description of the tissues which enter into the structure of vertebrate animals, and another for the applications of the Microscope to Geology. Those who are acquainted with Dr. Carpenter's previous writings on Animal and Vegetable Physiology, will fully understand how vast a store of knowledge he is able to bring to bear upon so comprehensive a subject as the Revelations of the Microscope; and even those who have no previous acquaintance with the construction or uses of this instrument will find abundance of information, conveyed in clear and simple language.

Dr. Carpenter's present work on the "Microscope" forms one of Mr. Churchill's series of Manuals, and worthily sustains the high character of these extensively circulated volumes. It is profusely illustrated with wood-engravings, executed in Bagg's best style, and ranging over not only the principles of optics, and the mechanical contrivances for the magnification of objects, but the whole field of animated nature, from the elementary *Protococcus nivalis* to the construction of the human lung.

As we happen to know that the "getting up" of this volume cost upwards of one thousand pounds, we can estimate the boon conferred upon the student of science, who is enabled to purchase for himself the results of so much labour and expense for twelve shillings and sixpence,—a sum which cannot, unless by a very extensive sale, cover the outlay incurred in the production.

The Principles and Practice of Obstetric Medicine and Surgery, in reference to the Process of Parturition. With one hundred and twenty Illustrations on Steel and Wood. By Francis H. Ramsbotham, M.D. Fourth Edition, revised. Pp. 762. London, 1856.

There are few Practitioners who have not seen or heard of Dr. Ramsbotham's large book on Midwifery, a work distinguished for the beauty and excellence of its illustrations, and the thoroughly practical character of its letter-press. The appearance of a new edition is a sufficient evidence of the value in which it is held by the Medical public; and we are told by the author in his Preface, that, since the first edition, six thousand copies have been disposed of. The present edition fully sustains the high character of the work, which has been carefully revised by Dr. Ramsbotham, who has re-written the section on the "Production of Anæsthesia in Labour;" a practice which, we may remark, he does not commend, at least in ordinary cases. He adduces a great mass of evidence against the indiscriminate employment of ether and chloroform in labour; but admits, that the use of these anæsthetics may be allowable in certain rare and exceptional instances.

GENERAL CORRESPONDENCE.

ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—As a warm friend to the Royal Medical Benevolent College, and as ready to believe that the Treasurer and Council are in every respect desirous that its regulations should be as perfect as possible, I wish to call their attention publicly, and not by any private communication, to a point which appears to me of considerable importance. The publicity of this appeal will probably elicit an explanation, which may be quite sufficient to satisfy myself and others; or, on the other hand, may induce the Council to alter their arrangements, should my remarks convince them that they are mistaken.

In the regulations accompanying the balloting-paper now just circulated, the following passage occurs:—"The votes polled for unsuccessful candidates will be carried on to their credit at the next election."

Now there are only 6 vacancies at the May election, 1856, to be supplied. There are 15 unsuccessful candidates remaining from the last election, and there are 29 new candidates. Of

the 15 old candidates, one obtained 1098 votes, another 1066, another 1014, another 918, another 897, and another 874. These are the six highest numbers. The consequence of these numbers of votes being carried on to their credit will be, that there will probably not be a single new candidate elected. It must not be forgotten that the unsuccessful candidates of last year have another advantage: not only will they have all their former votes reckoned, but there is no rule to prevent the same Governors from giving them again their votes of this year, besides a great number who, being released from their last year's engagements by the success of the candidates they then supported, will now throw their votes into the scale of so many of the candidates whom they were unable at the last election to assist.

Having some experience in Institutions of a similar nature, where candidates are elected by the subscribers at large, I am able to say, that such a principle of election is either unprecedented, or exceedingly rare, and I think it unfair and mischievous.

In the list of the new candidates this year there are several most deserving cases; but I will not particularise, as I do not wish this appeal to become a canvassing letter. The consequence of this regulation will probably be, that some of the most deserving will be superannuated before the election of next year, all prospects for this year being destroyed. There are only 6 vacancies, and 15 old candidates; assuming that next year there will be the same number of vacancies, there will still be 9 of the first year's list unprovided for, who will then have two years' accumulation of votes, so that, as time goes on, no new candidate will have the slightest chance of election, till he has been one, two, or even more years on the list.

Now this seems to me very unfair, very unwise, and needlessly prolonging the anxiety and increasing the expense of the relatives of the children; and I believe it to be wholly unprecedented.

If it be said that by this plan the most friendless will have a chance; my reply is, that the mode of election adopted is in all other points admirably calculated to give the best chance to the most deserving cases, and has little or nothing to do with their having or not having a large circle of friends. Owing to the plan of publishing along with the balloting-paper a *catalogue raisonnée* of each case, the Governors will be able to judge of the most deserving objects. Some individual boy, by his parents having been well known and respected in their own neighbourhood, may concentrate upon himself the chief or entire votes of the Governors in that especial locality, and their friends; but as each Governor will have five other votes to give away, he will still be influenced by the merits of the other cases to distribute them as he prefers. In this way private influence and partiality can only affect one or perhaps two individual cases.

Even this objection might be obviated by a plan in force at the National Benevolent Institution, where the Council are empowered to nominate two candidates who have been longest on the list, to vacancies each year. But at that Institution, as the pensions are only for old persons, there is no superannuation of a candidate, unless by death.

Having entire confidence in the Council of our excellent College, I should personally prefer that the appointment to the annual vacancies should be left in their hands; and I fully believe they would only select the most deserving cases; and by this, the friends of the children would be spared much trouble, and an expense which they can ill afford. But I am aware that such a system would be objected to, as liable to lapse into favouritism, or the suspicion of it, which would be as hurtful; and experience has also proved that the system of open elections keeps alive the interest of the Governors in the success of the College.

My best way of imploring the Council, either while there is yet time to rescind the obnoxious regulation, or to defend it in such a way as will satisfy the Governors, is to address this letter to our Medical Journals; and I do so with the fullest confidence that they are desirous only of the best interests of the Institution. I am, &c.

April 28, 1856. C. L. H. S.

[To the Editor of the Medical Times and Gazette.]

Sir,—When we see the immense amount subscribed by the nobility and non-Medical gentry, to the Royal Medical Benevolent College, up to the present time, we cannot but consider it as a complimentary mark of their high appreciation of the services, at least, of our Body, and we must ever be grateful to them; yet we cannot reasonably expect that they will continue their purses open, to carry on such an invaluable Institution. In order, therefore, to ensure a lasting support, I would make a humble appeal, and most earnestly entreat each and every Medical man throughout the kingdom to contribute his mite, and that regularly and annually. Those who are not in affluence can do this, those who are prosperous can and should do this; if it were only for the gratification and inward satisfaction of having contributed to the comfort of their less fortunate brethren. To this end, I would say, let every Medical man with a practice under £300 a-year subscribe half-a-guinea, and every one above £300 pay one guinea annually. Thus, instead of our annual subscriptions amounting to perhaps three or four thousand pounds a-year, they would scarcely be less than fifteen thousand pounds; and thus we should indeed have a most gigantic and sound receptacle for our distressed members. Then, it would be that the sorrow of the widowed mother would be soothed, if not her tears wiped away; and then it would be that the cry of the hapless orphan would be heard, and his temporary destitution removed by the almost certain prospect, that he would yet grow up and become a useful member of society.

"Pallida mors æquo pulsat pede
Pauperum tabernas regumque turres."

I am, &c. Fred. Manby.

East Rudham, April 24, 1856.

STRICTURE OF THE ŒSOPHAGUS DEPENDING ON MALIGNANT DISEASE.

[To the Editor of the Medical Times and Gazette.]

Sir,—The frequency with which diseases of the throat of one sort or other are met with may, perhaps, render the following case, happily somewhat uncommon, worth perusal.

Miss M., aged 35, consulted me, on February 12, for an affection of the throat which had existed, or rather been observed, since October, and which, in spite of many Doctors and many different plans of treatment, "quot homines tot sententiæ," had gradually increased in severity.

Symptoms.—She complains of almost complete inability to swallow, any attempt to do so causing violent paroxysms as if suffocation must ensue, followed by retching and extreme distress; since Christmas-day she has never attempted to sit at table. She coughs almost incessantly, and expectorates copiously a brown tenacious fluid, very fetid, which floats on water. Her breathing, when awake, is natural; but, when asleep, it causes a loud snoring noise, both on inspiration and expiration, which awakens her, and so prevents her getting any rest. The voice is unaffected. Though suffering extreme annoyance and distress, she has never felt actual pain in the part. The throat externally, from the sternum to the hyoid bone, presents one smooth, hard mass, immovable, not tender on pressure, neither hot nor red; all outline of the hyoid body, muscles, etc., is lost, the swelling being rather larger on the left side. Internally the pharynx looks healthy, except as irritated by the coughing. She is pale and emaciated; the countenance haggard and anxious, and the eyeballs remarkably protruding; skin cold and dry; tongue slightly furred, but moist; pulse 90; breathing 19. Lung and heart sounds normal. Catamenia regular.

Treatment.—Six leeches were applied to the throat; ordered not to attempt to swallow, but to suck small pieces of ice, and have a beef-tea enema three times a-day. She appeared relieved for a day or two; but after that the breathing became impeded and sonorous; she spoke with difficulty; could not bear even the ice; and, on the night of the 20th, she was attacked with spasms in the abdomen, (depending, I believe, on suppression of the catamenia,) and extreme dyspnœa. Mr. Sankey, of Dover, saw her with me, and recommended renewed application of leeches and small doses of calomel and antimony. Again she was relieved; but, on the 23rd, had a relapse, and died of asphyxia, the intellect remaining perfectly clear to the last.

Post-mortem.—Examination made twenty-six hours after death. The veins of the neck were much congested; the glands simply enlarged. The thyroid body was generally hypertrophied; in the left lobe there was a scirrhous mass, the size of a small apple, white, hard, and cartilaginous. This ex-

tended into the œsophagus, being there irregular and nodulated, and involving part of the right lobe of the thyroid. It so completely blocked up the passage that a probe was passed with difficulty, reaching as high as on a level with the epiglottis, and about an inch below the cricoid cartilage. In some places it had broken down into small abscesses, containing brown fetid pus, similar to that expectorated during life. The cavity of the larynx was almost obliterated by the pressure from behind; but, excepting congestion and œdema, its tissues were healthy. Leave was not obtained to examine further.

Remarks.—My remarks must be brief; but we cannot fail to be struck with the complete absence of pain, and the freedom of the voice and larynx generally till within so short a time of death; also the rapid progress of the disease as soon as the air-passage became affected.

Similar Case.—A few weeks previously I had under my care a man, aged 67, who, for more than six months, had suffered from increasing difficulty of swallowing, causing great constitutional irritation, and killing him from inanition, in whom the post-mortem examination revealed simple stricture of the œsophagus, with little or no surrounding disease.

I am, &c.

Sandgate, March, 1856. Hy. Leach.

CASE-TAKING.

[To the Editor of the Medical Times and Gazette.]

Sir,—I am not certain whether Mr. Toynbee wishes to obtain credit for a system of case-taking, which he has rather elaborately put forth in the current number of the *Medical Times and Gazette*. If it be so, I beg to say he has been anticipated by myself; and, if there is any merit in the idea, that merit is undoubtedly mine. At the foundation of the Ear Infirmary in Sackville-street, in 1838, I devised a series of interrogatories, by which each patient was enabled to furnish me with a history of his case, thereby saving me much trouble, and the patient a fruitless attendance; for, from the history thus obtained, I have been frequently led to pronounce the case beyond the reach of Medical aid.

By comparing these interrogatories (a copy of which I enclose duly filled in by a patient) with the plan of Mr. Toynbee, you will be struck with the similarity of idea; and, although I am loth again to charge Mr. Toynbee with piracy, the closeness with which that gentleman follows me in my practical suggestions is not a little remarkable. There is one point, however, on which we do not appear likely to be in accord, namely, excision of an exuberant growth of the tonsil in deafness; for, in the same communication, Mr. Toynbee relates the case of a gentleman who is subject to repeated attacks of deafness, "each attack having usually disappeared with the occurrence of a sudden crack in the ear," doubtless attributable to the sudden admission of air through an obstructed Eustachian tube. Obstructed by what? It is admitted that "each tonsil is somewhat enlarged." Somewhat enlarged is not very definite, but it is sufficiently so to indicate the true remedy for such a case. Nevertheless, Mr. Toynbee, or Dame Nature, cured him, of course without excision. It remains to be seen for how long; for at present it is no more a radical cure than it has hitherto been by other treatment in other hands.

I am, &c. James Yearsley.

15, Savile-row, April 29, 1856.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Saturday, April 19, 1856.

Dr. Chowne, President, in the Chair.

Dr. Gibb exhibited specimens of

ACUTE PLEURO-PNEUMONIA,

taken from the body of a female cat, which died suddenly after a few days' illness, accompanied by cough. The right side of the chest contained twenty-eight drachms of a turbid, greenish, neutral serum, sp. gr. 1030, mixed with flatus of lymph. A number of recent adhesions were present between the anterior and lower surfaces of this lung and the costal pleura, and the substance of the lung itself was in a state of inflammation. The opposed surfaces of the upper and middle lobes were adherent, as well as the lower border of the middle to the inferior lobe. The remaining viscera were healthy. He remarked, acute disease so visibly marked is not often witnessed in the carnivora, although diseases of the lungs preponderate over other in the feline tribe of animals.

Mr. De Méric exhibited a small instrument called the serfine, made of twisted silver wire, and first introduced by Vidal, for the purpose of obtaining union by first intention in minor surgical operations. It was, he said, especially useful in operations for phymosis; and he mentioned a case in which he had recently employed it with great benefit, and without the œdema resulting from the application of ordinary sutures.

Mr. Hancock did not think the instrument superior to the ordinary silk suture, which, if properly applied, and removed in twenty-four hours, was not attended with the inconvenience complained of. He had used the serfine, and he thought it created a great deal of irritation, for it not only kept the parts together, but exercised a positive pressure upon them, the injurious effect of which was increased by the resistance of the swollen parts.

Mr. Hunt read a paper on

PURPURA,

which, although generally described by writers on the skin as a cutaneous disease, the author considered as having no better title to that appellation than jaundice or cholera. He objected to regard it as necessarily a disease of debility, though so described by Willan and others. He viewed it as simply a tendency to extravasation of blood either beneath the epidermis, or in other parts of the body, producing hæmorrhage, and as existing in two forms, the congenital and the acquired. For the former, he suggested no remedy. The treatment of the latter should depend upon its cause and the circumstance attending its development. Mr. Hunt could not agree with Dr. Salter and others, that the existence of purpura necessarily demonstrated any special and necessary pathological condition of the capillaries; but he maintained, that in all cases there must be a disproportion between the momentum of the circulation and the resisting power of the capillaries; and whether the one or the other was in fault, or most in fault, was the question to be inquired into in every case. He had seen the disease arising from debility, and from insufficient nourishment, just as its analogue, sea scurvy, arises from improper food. In these cases, the indications were nourishing food, astringents, and tonics. But it frequently occurred under widely different circumstances. One prominent form of the hæmorrhagic diathesis he had frequently seen connected with hepatic congestion and obstruction of the vena porta system, with well-marked symptoms, and occasionally complicated with jaundice. In these cases, if the patient were treated with astringents, tonics, and a nourishing diet, he would certainly die; the only available treatment being active purgation, with repeated doses of calomel and jalap, with a view to unload the intestines of the black, tenaceous, pitch-like fæcal matter with which they are always loaded. The author also described another form, in which, without any apparent cause, in robust and healthy subjects, purple spots, ecchymosis, and vibices appeared, together with hæmorrhage from the mouth, nose, eyes, or ears, and from the internal organs likewise, from which the patient often sunk. The remedy, and the only remedy, in these cases, was frequent vomiting, artificially induced. The petechiæ which appeared in severe cases of typhus and the eruptive fevers, presented again another form of purpura, which required the mineral acids, quinine, and nourishment. The author concluded by expressing his conviction that purpura, or the hæmorrhagic diathesis, presents, *per se*, no proof of the existence of any particular or invariable lesion; that it does not necessarily indicate debility, nor a friability of cell-wall, nor a diseased condition of the blood, nor a gorged liver, nor the approach of collapse in fever, nor an increased momentum of blood in a robust or healthy subject; but that yet it may occur as a result of any one of these conditions, and perhaps of many more; in short, that it was in fact no disease at all, nor even a symptom necessarily of any one diseased condition, but that it was simply an accidental complication, and that the thing to be avoided in its treatment was the error of assigning to it a pathological character, and thus treating it as itself the

disease instead of inquiring most carefully into the circumstances of the individual case, and thus ascertaining correctly what is the thing signified by this most alarming, yet most equivocal sign.

Dr. Semple thought the ultimate pathology of the disease must be regarded as always the same, consisting in some peculiar condition of the capillaries and of the blood. The exhalation theory of old writers, he believed, had long been discarded. It was difficult to show how the blood corpuscles passed out of the capillaries; but it was contrary to analogy to suppose that they escaped without some rupture of the walls, and he agreed with Dr. Hyde Salter in thinking that such rupture existed. In the cellular tissue of plants fluids readily passed through the cell walls by endosmose and exosmose; but he was not aware that solid particles, such as starch, ever passed through the walls. The varieties of purpura, he thought, might be reduced to two, that resulting from debility of the system brought about by various causes (to which the majority of cases might be referred); and that arising from a sthenic condition.

Dr. Snow believed that what was called purpura hæmorrhagica was in most cases scurvy under a different name, and arising from a different cause. Dr. Millman, in a work published in 1782, attributed scurvy to debility of the muscular tissue; and Dr. Garrod had cured the disease with liquor potassæ, believing that potash was the salt of the muscles, of which, in scurvy, there was a deficiency.

Dr. Daniel looked upon purpura as a blood disease. In two cases he had known it connected with traces of insanity.

Mr. Hancock thought the disease should be connected with the other discharges which took place in the body. He did not think it resulted from a rupture of the vessels, or any peculiar condition of their coats, but from a peculiar condition of the blood itself. If there was a rupture how was it that it was confined to the venous capillary branches, as indicated by the purple colour of the spots?

Dr. Webster believed the disease was generally one of debility; it was commoner in large towns than in the country, and more men died of it than women. The treatment he had found most effective was the employment of mineral acids, bark, mild purgatives, and nutritious and easily digested food. The disease was not now so fatal as formerly.

Dr. Hyde Salter defended the views which he had adopted, and the accuracy of which had been questioned by the author. There was no evidence, he said, of rupture in the larger vessels. As to the capillaries, they were composed of a tissue that was homogeneous in structure, presenting no aperture whatever, so that it was only by means of a rupture that the blood, which contained particles of a given size and shape, could make its exit; and, for this rupture to take place, he thought there must be an undue friability of the capillary wall. He could not recognize in an undue momentum of blood a sufficient cause for the phenomena observable in purpura. Frequently there was the reverse of an undue momentum, especially in the case of delicate females. It had been asked how it was that venous blood only escaped, as shown by the purple colour of the spots. The colour, however, was first red, and subsequently became purple, acquiring the venous condition after its escape.

Dr. Ogier Ward had seen cases of purpura following immediately on fright. He suggested that the spots might be produced by the escape of the colouring matter of the blood without any rupture of the capillaries.

Mr. Hird said he had seen cases of purpura in which the origin of the mischief was in the nervous system.

The Author having replied, the Society adjourned.

SATURDAY, APRIL 26, 1856.

DR. CHOWNE, President, in the Chair.

DR. DANIEL alluded to the death of Dr. Clutterbuck, and moved that a letter of condolence be sent by the Society to his surviving daughter. He adverted to Dr. Clutterbuck's early connexion with the Medical press, his Professional integrity and talent, and the services he had rendered to the Medical Society over which he had several times presided.

The motion was seconded by Mr. Hird, supported by Mr. J. F. Clarke, and unanimously adopted.

POLYPOID GROWTH OF THE UTERUS.

Mr. Hird exhibited a polypoid growth which had been removed by excision after ligature from the cervix and os uteri of a patient of the President's, in the Charing-cross Hospital, aged forty-seven. It was the size of a child's head; and its pedicle, about two inches in diameter, appeared to grow from the whole of the inner surface of the left side of the neck of the uterus, which was much enlarged. The structure was that of the cellulo-vascular variety of these formations, the vessels being unusually large. At the time the tumour was removed, and for a fortnight previously, the os and cervix uteri had been dragged by its weight through the vulva; but until recently, although it frequently protruded, the patient herself had been able to return it, and retain it in the vagina.

Mr. Hird also exhibited the mamma of a lady, aged forty-six, which he had excised. There were three hard, lobulated, cancerous tumours, imbedded in the adipose tissue of the gland. He observed, that there were circumstances of practical interest in the case. The disease had been eight months in forming, the first evidence of enlargement having been observed at the time menstruation ceased. Very little pain had been felt until two months before the operation, about which time one of the lymphatic glands in the axilla became enlarged and painful. The tumour was about the size of a pullet's egg, movable, and not adherent to the superjacent skin. The nipple was natural, and did not manifest the signs of retraction usually noticed in carcinoma of the mamma. Mr. Hird observed, that a lymphatic gland in the axilla had become hard, swollen, and painful, and infiltrated with the same diseased product as the mammary gland, although there was no perceptible change in the nipple or skin over the primary seat of the disease; and that in this case, the generally received opinion, that the implication of these glands is coincident with that of the skin at the primary seat of injury, was not verified.

The President said, the uterine tumour exhibited by Mr. Hird had been returned by several Medical men as a prolapsus uteri, and as recently as a fortnight ago was returned by the patient herself. On examination, he (the President) discovered that it was a tumour, and it was accordingly removed. In answer to Mr. Hunt, the President stated that the functions of the rectum and bladder were not interfered with.

Dr. Richardson mentioned the case of the sudden death of a gentleman, aged 59, who was subject to delirium tremens, and was confined to his room by a slight attack of the gout. The heart (which was exhibited) was extremely attenuated, having undergone an extensive fatty change. The aorta was lined by a fibrinous clot, which was tubular, and conveyed a blood current; but, whether it was formed just before or after death, he (Dr. Richardson) could not say. It was, perhaps, scarcely sufficiently developed to have been formed previous to death.

Mr. Birkett read a paper on

PRACTICAL DEDUCTIONS FROM A CLINICAL RECORD OF TWENTY-SIX CASES OF STRANGULATED FEMORAL HERNIA.

The author commenced by stating, that the object of the paper was, first, to bring prominently into the foreground the causes of death; 2nd. The circumstances by which those causes are brought about; and, 3rd. The means by which they may be avoided. It was shown, by means of a table of the cases, that a certain number of unfavourable circumstances occurred in each case, and that, in proportion to the aggregate, as a general rule, the case was cured, or terminated fatally. But in some of the cases only two, three, or four unfavourable circumstances existed, and yet the patients died; and in these, as well as others with a larger number, the causes of death were sought for and demonstrated. Of the twenty-six cases, all of which were operated upon by the author, one-half terminated fatally. In the fatal cases, death resulted from causes over which the operation could have but little influence, and it was undertaken only with the view to place the patient in a condition more favourable to recovery. The causes inducing the fatal result may be thus enumerated:—

1. The consequences of a journey performed while the patient was suffering with strangulated femoral hernia.

2. The defective constitutional nutrition of the patients generally.

3. Irrecoverable prostration, the result of long-continued vomiting and strangulation of the bowel in aged women.

4. Violence inflicted on the hernia. To this cause the death of not less than five out of the thirteen is to be attributed.

5. The administration of purgatives before the operation.

The author unhesitatingly preferred to reduce the hernia without opening the peritoneal sac in those cases in which the Surgeon would be justified in returning the protrusion by the taxis, if it could be accomplished.

In the twenty-six cases the peritoneal sac was opened in twelve, and the causes which prevented the reduction of the hernia without so operating were the three following:—

1. The contents of the sac.

2. The morbid condition of the contents of the sac.

3. The dimensions of the neck of the sac, and the unyielding state of its tissues.

Six cases were related in which the author had reduced the hernia by a simple division of the fibrous tissues about the neck of the sac, and external to that covering of the hernia known as the fascia propria. To this simple method of relieving the constriction around the bowel the author gave the name of "The Minimum Operation." The causes of death in the fatal cases were shown, by post-mortem examination, to be referable to peritonitis; injury of the bowel inflicted in the taxis; exhaustion after fæcal fistula; phlegmonous inflammation; collapse; acute bronchitis; and perforation of the bowel. Of the cured cases, the minimum of hours during which the bowel was strangulated, was three hours; the maximum was seventy-seven hours. Of the fatal cases, the minimum period of strangulation of the bowel was eleven hours; the maximum seventy-nine hours. Of the cured cases, the average number of hours during which the bowel was strangulated amounted to thirty-three. Of the fatal cases, the average period of strangulation of the bowel was forty-six hours. The causes of death were primary and secondary:—1. Prostration; peritonitis; gangrene of the intestine; perforation. 2. Bronchitis; abscess behind the peritonæum; phlegmonous inflammation and suppuration. The circumstances by which they were brought about:—Age; a journey; the defective constitutional nutrition of the patient; the morbid state of the canal above the strangulated piece of bowel; injury of the hernia caused by the constriction of the ring, and by manual violence inflicted on it; the duration of the sufferings; the intensity of the constitutional sympathies; fæcal fistula; neglect of the tumour; the administration of purgatives; the warm bath. The means by which they may be avoided are:—By care in manipulation; the early relief of the bowel from constriction; the reduction of the hernia without opening the peritoneal sack; the exhibition of opium; and the avoidance of all causes likely to induce exhaustion.

Mr. Hunt said, the most important point of the author's paper was that which referred to the mischief resulting from the injudicious, he had almost said the rascally, use of the taxis, which he thought one of the greatest disgraces to modern Surgery. The directions given, even by the best authors, were often such as to mislead the Surgeon. He (Mr. Hunt) had used the taxis without the warm bath, bleeding, or antimony. Where there were no complications, the taxis, if used early, and properly applied, would always be successful. The tumour should not be kneaded about, in the way sometimes recommended, but the pressure should be of the gentlest kind, and perfectly continuous, as the sac of fluid could only be returned slowly, drop by drop, in the same way that it came. He had continued the pressure two hours and twenty minutes without intermission; and he had never failed to reduce a hernial tumour. No doubt, where a patient was taken to the hospital, after unfavourable circumstances, such as those described by the author, an operation was often required.

Mr. Hird said he was formerly of opinion that in operating the sac should be opened; but he had changed that opinion, and thought the sac might be returned without opening. It was important to operate early, and to avoid the injection of purgatives, either before or soon after the operation. A dose of calomel and opium was formerly adopted; but at present the introduction of opium into the system was mainly relied on. So early an application was not needed in inguinal as in femoral hernia. In the latter form of hernia, he should not have much confidence even in the method recommended by Mr. Hunt, however successful it might be in the former.

Mr. Hale Thompson expressed his surprise and regret at the assertion of Mr. Hunt, that he had never failed to reduce femoral hernia. In operating, he believed the sac should be cut through so as to remove every possible constriction, as frequently a little inflammation, adherent, returned with the sac, would cause the death of the patient. Opium should not be given, as it masked the case, and prevented the Surgeon from knowing what was going on. If pressure upon the little knuckle of intestine produced pain, that was an indication that it was time to operate.

Mr. Henry Lee hoped it would not be considered that the remarks of the author about opening the sac were equally applicable to cases of inguinal hernia.

Mr. De Méric said the taxis was a valuable agent when properly managed; but, as there might be other things than fluid in the sac, it would not always succeed.

The author, in replying, said, that in most cases coming to the Hospital a prudent Surgeon would hardly think of attempting the taxis. He had seen more than one case in which the bowel had been ruptured by its use.

The Society then adjourned.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

March 7, 1856.

Dr. Cahill in the Chair.

The eighth ordinary meeting was held this evening.

Mr. W. M. Hatfield reported

A CASE OF CONGENITAL DEFICIENCY.

A woman gave birth to her first child, at about the sixth month of pregnancy. The abdominal parietes were deficient in the umbilical and hypogastric regions, through which the peritonæum protruded as a bag, containing the liver and intestines. The placenta was immediately attached to the bag of peritonæum by, apparently, the usual vessels; but the funis, as such, was wholly wanting. The genital organs, internal and external, were absent. There was no urinary bladder. The kidneys were situated as usual, and apparently healthy in structure. The right ureter could be traced into the iliac fossa, but was there lost in cellular tissue. The left, less than an inch long, terminated in a cellular body not unlike an ovary. No ovary, however, could be demonstrated; nor was there any uterus. The large intestines were wholly wanting, and the ileum ended in a cul-de-sac, hanging free in the abdominal cavity. There was, consequently, no rectum, nor anal aperture. The anterior portion of the bony pelvis was deficient, corresponding to the ischia and pubic bones. The lower extremities were consequently directed upwards and outwards. The fœtus did not appear to have been long dead, although the mother had never experienced any movement of it. There was considerable hæmorrhage from laceration of the placenta, owing to its close attachment to the fœtus.

Dr. William Ogle introduced the question,

"HOW SHALL THE MEDICAL PROFESSION ASSIST THE OFFICERS OF HEALTH?"

He urged the cordial co-operation of the Profession at large, on the ground that the success of the present sanitary effort would be to the credit of the Profession; and that, if the result of the appointments now being made was an advance in our sanitary knowledge, the status of the Profession at large would be raised, the results would be appreciated by the public, and the agents would, to the same extent, receive honourable acknowledgment. He illustrated his position by reference to the fact, that Sir B. Hall had publicly stated, that he regarded the sanitary portion of his measure as one of the most important in the whole Act. And also, that the vestries had, generally speaking, exhibited more than their wonted liberality, when called upon to carry out the provisions of the Act. He thought that this advance in the estimation of the services of Medical men was due to the success which had attended their efforts during the late epidemic of cholera. The Vestry of St. James's, however, seemed to be an exception; for there, if anywhere, we should have looked for a just appreciation of Medical labour. We learn from this instance, compared with districts such as Lambeth, that the

public appreciate more highly the department of curative than preventive medicine. On the whole, however, he considered the conduct of the vestries was to be commended; and for this good treatment, Mr. Simon and his fellow-labourers deserved the thanks of the Profession. Dr. Ogle next proceeded to show, that the contributions of individual members of the Profession need not be great, in order to secure a considerable result. The use that had been made of the registrars' returns of deaths showed the value of collecting a few isolated facts. Many histories of epidemics were little more than commentaries on the registrars' returns. But something more than this was needed, when we wish to be informed of existing epidemics, and not merely to be furnished with materials for a history of that which has gone by. The first intimation of the sanitary condition of a district ought not to appear in the returns of deaths. Dr. Ogle exhibited to the Society a collection that he had made, of nearly two thousand cases of sickness that had occurred in Pimlico during the past year; which, when arranged according to the streets, gave important information of the sanitary condition of different parts of that district. And he argued that a return made to the Officer of Health, of the age and sex, the name of the disease, and the address of every case of sickness, would, when collected and arranged, exhibit facts which would be highly valuable to the Profession at large. They would show at a glance the prevailing type of disease at a given time; also the part of the community specially liable; and would direct the attention of the Medical Officer to those localities which required his immediate consideration.

The meeting then adjourned.

EXTRACTS FROM DR. LETHEBY'S REPORT ON MORTALITY RETURNS, Etc.

Gentlemen,—In accordance with your requisition of the 8th inst., I beg to submit my Report on the imperfection of certain Mortality Returns which have come before you—chiefly the verdicts of coroners' juries, and of suggesting a means whereby greater effect might be given to the inquests of Coroners, especially in cases of sudden death. Ever since I have had the honour of occupying a place here, as your Sanitary Officer, I have noticed that the Mortality Returns of this City, and also of the Metropolis generally, are too often vitiated by the imperfect record of "sudden death." As this is the record of cases in which inquests have been held, or ought to have been held, it has occurred to me, that a far more satisfactory return should have been made, and that the inquiry ought to have been conducted in such a manner as to have determined the actual cause of death.

I need not tell you, that for all statistical and hygienic purposes, such returns are utterly useless; but when, in addition to this, they are put forth as the verdicts of a Coroner's jury, as the results of a solemn and serious inquiry into the causes of sudden and unexpected deaths, I do not hesitate to affirm, that they are likely to be productive of incalculable mischief. To give you some idea of the extent to which these imperfect returns have been made, I will quote from the Third Annual Report of the Registrar-General, where Dr. Farr has published a very elaborate account of all the inquests which were held in England during the years 1838 and 1839. From that it appears, that of the 35,000 inquests recorded, there were 6,708 in which the causes of death were not ascertained, and that of two out of every three instances of sudden death the verdicts were unsatisfactory. About one-third of those cases occurred in the Metropolis. I find also on reference to the General Summary of the Weekly Returns of the Births and Deaths in London during the year 1855, that as many as 652 cases of sudden death were recorded in London during that period; and it further appears, that for the last fifteen years there have been 9,244 of those cases in London alone. These give an average of 616 unsatisfactory returns for every year, and, I believe, that they constitute as nearly as possible from 20 to 25 per cent. of all the inquests that are held here.

I have not had an opportunity of examining very fully the particulars of the Coroner's Returns, but I am led to believe, that the verdicts in these 9,244 cases were somewhat as follows:—About 30 per cent. are returned as "found dead in bed;" about 26 per cent. as "found dead in the street;" about 10 per cent. as "found dead in a cellar," or "on the floor," or "in a water closet," or "in a cabriolet;" besides which, there is a due proportion of "died from grief," "died from passion," "died of a broken heart," and "died by the visitation of God."

I need not say that these are not the verdicts which the public have a right to expect from a coroner's jury, for the object of an inquest is to ascertain the cause of death, and the inquiry has fallen short of its intention when either of these imperfect verdicts is the record given. In fact, for the jury to go no further with the inquiry than where they began with it, to make the bare fact with which they started upon the investigation, namely, the finding of a dead body, the serious termination of it, is not, to use the words of Dr. Farr, likely either to inspire the criminal with dread or the public with confidence.

Again, of the numerous cases in this city in which persons are found drowned, it appears from Dr. Farr's letter, that more than half the verdicts are returned in an unsatisfactory manner. In fact, of the 351 instances alluded to as having occurred in one year, the verdicts in 191 cases were merely "found drowned," leaving it altogether undetermined as to whether the deaths were occasioned by suicide, or homicide, or accident. "The fact," says my authority, "that some bodies of drowned persons are never found, that others are never identified, and that murder by drowning leaves no marks, appears to offer a chance of impunity to the commission of crime in this large city. Here the bodies found dead are taken to some obscure vault, or to a public-house or a workhouse, or a small room that can be hired for a few shillings. There they often lie undescribed, unadvertised, unknown, until the constable summons a jury in the immediate neighbourhood, who, with no evidence before them as to identity, or with little satisfactory evidence as to the circumstances of the death, bring in common verdicts of 'Found drowned,' or 'Found dead,' and the unnamed corpse is then committed, without further delay, trouble, or expense, to the parish burial-ground. Persons," continues Dr. Farr, "may thus disappear and be buried before their friends miss them, in the dense population of the metropolis. Without adopting the French Morgue in all its details, some steps should be taken to remedy the defects in this part of our system of police. The bodies found dead should be conveyed to one central place, where they may lie until notice had been afforded for identifying them. Advertisements, drawn up under the direction of the coroner, should be sent to the newspapers, and placards to the public officers before the inquests were held, which would enable the parties concerned to identify the dead, and the juries to ascertain the cause.

That it is the duty of the coroner to specify the cause of death in every case where he holds an inquest of death, is manifest from the wording of every Act of Parliament relating to his office, from the time of the first statute of Westminster, in 1275; and as lately as the 6th and 7th William IV., and the first year of the present reign, increased powers were given to the coroner to enable him fully to accomplish it. In the Registration Act of 1837, it is expressly provided that in every case in which an inquest shall be held on any dead body, the jury shall inquire of the particulars herein required to be registered concerning the death, and the coroner shall inform the Registrar of the finding of the jury, and the Registrar shall make the entry accordingly. Now the most important particular that is required to be registered is "the cause of death." "The Act," says Dr. Farr, "left to the proper parties—the coroners—the discretion of holding the inquest, but rendered it imperative on the jury, whenever it was summoned to sit on a body, to inquire into the particulars of the cause of death;" and for them to say that it was sudden, is to leave it undecided whether the death was occasioned by apoplexy, epilepsy, the rupture of a blood-vessel, disease of the heart, mental excitement, exposure to cold, to noxious gases, or to hunger, a sun-stroke, a discharge of lightning, violence, suffocating, drowning, the free use of alcoholic liquors, or the action of poison. Some of these are of a criminal quality; and although it would be taking a very narrow view to suppose that inquests are only intended to detect murder, yet it must be manifest that even that cannot be insured without determining in every instance the actual cause of death.

At the present time the Coroner's inquiries are conducted in public. They are instituted before twelve men of the neighbourhood—men who are, from their local knowledge,

best able to understand and appreciate the facts of the case. Besides which it must not be forgotten that the Coroner is a public officer, that he is not answerable for his conduct to any but the public, and is, therefore, most likely to protect its interests. Again, the institution itself has its foundation in the wants and prejudices of the people; its importance and value are deeply rooted in the public mind, and its usefulness has been sanctioned by the experience of ages. I have elsewhere expressed myself very fully on this matter, and I believe it is advisable to reform, and if possible to strengthen, the office of the Coroner. This may be accomplished in various ways—as by defining the circumstances under which inquests ought to be held; by increasing the dignity of the Coroner's office; by not calling his acts in question, unless there is good reason for so doing; by abolishing fees, and paying him as other judges are paid, by a fixed salary; and, above all, by appointing an officer whose duty it should be to make preliminary inquiries as to the necessity for holding an inquest. Such an officer should also undertake to superintend the making of post-mortems, and should perform the chemical analyses when necessary. The functions of this officer would be somewhat allied to those of the procurator-fiscal of Scotland, and the like officer on the Continent. But there would be this important difference between them; namely, that in the case of the Medical officer, there would be no power of pronouncing judgment, for the whole duty of publicly investigating the facts, would rest, as now, with the Coroner and his jury. Mr. Payne, Mr. Chadwick, and others have expressed themselves in favour of this suggestion, and I am convinced that by adopting some such reform, the hands of the Coroner would be greatly strengthened, the cause of death would be more frequently determined, the expense of the investigation would be considerably reduced, the officiousness of unfeeling constables would be entirely set aside, and, in fine, the confidence of the public would be completely secured, and its safety fully provided for.

MEDICAL NEWS.

Death of G. J. Guthrie, Esq.—We regret to announce the decease of this distinguished Surgeon, which took place on Thursday morning, May 1, at his residence, Berkeley-street, Berkeley-square. The news of this mournful event having reached us just on the eve of going to press, we are precluded from further remark until next week.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, April 24, 1856:—

Avent, Nicholas, Modbury, Devon.
Boyd, James, Beith, Scotland.
Cogan, Bernard, Ireland.
Dalston, Thomas, Barnard Castle.
Dow, Robert Campbell, Holmfirth, York.
Fox, Wilson, Wellington, Somerset.
Harker, John, Kendal, Westmoreland.
Husband, John Bake, Bridport, Devon.
Le Sage, William Louis, Hayle, Cornwall.
Rann, George, Birmingham.
Smith, Joseph Evans, Winchester.
Smith, William Allis, Mablethorpe, Lincoln.
Winn, Walter James, Manchester.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 18th instant:—

Bowles, Robert Leaman, Abergavenny.
Dalton, Frederick George, Westerham, Kent.
Gray, James Foster, Leicester.
Harker, John, Kendal, Westmoreland.
Harthan, Isaac, Congleton, Cheshire.
Hodges, Herbert Busy, Royal Navy.
Little, Robert, Belfast.
Pugh, John Lister Pool, Halifax, Yorkshire.
Stephenson, John, East Parade, Leeds.
Walker, Henry Read, St. Michael's, Azores.

At the same meeting Mr. Samuel Saunders passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date April 12, 1850.

The following were admitted members on the 21st inst.:—

Chick, Edwin Reynolds, Manchester.
Davies, Owen, Cardigan.
Earle, Edward Septimus, Charterhouse-square.
Ferguson, Robert, Passage West, Cork.
Fitzgerald, Charles Egerton, Bicester, Oxon.
Groom, William, Wisbeach, Cambridgeshire.
Moore, Edward Denniss, Birmingham.
Morris, Frederic Henry, Cheltenham.
Williams, John, Llanerchymedd, Anglesea.
Winn, Walter James, Oxford-street, Manchester.

The Fellowship.—The following gentlemen have passed the preliminary examinations in Classics, Mathematics, and French, entitling them to undergo the professional examinations for the Fellowship of the Royal College of Surgeons:—

Day, Henry Arundel, London Hospital.
Everett, William, Stepney-green.
Lloyd, Francis, Bedford-row.
Rudall, James Thomas, Rochester-square.
Taafe, Richard P. B., St. John's-wood.

The professional examinations will take place on Monday and Wednesday, the 5th and 7th of May next.

DEATHS.

Bucknill.—April 29, after two days' illness, Mr. Edward Reading Bucknill, of Bedford, student and dresser at St. Thomas's Hospital, aged 23.

Clutterbuck.—April 24, deeply regretted, Henry Clutterbuck, Esq., of New Bridge-street, Blackfriars, in his 90th year. M.D. Glasg. 1804; L.R.C.P. Lond.; Cons. Phys. Peckham Lun. Asyl.; to the Roy. South Lond. Disp. and Western City Disp.; formerly Phys. to the Gen. Disp. and Lect. on the Theory and Pract. of Phys.; and Pres. of the Med. Soc. Lond. Author of "Inquiry into the Seat and Nature of Fever," 1807; "Epidem. Fever of 1819;" "An Essay on Pyrexia, or Symptomatic Fever," 1837; "Lectures on Bloodletting," 1840. Contrib. "A paper on Apoplexy," in *Encyclop. of Prac. Med.*; Editor of the *Med.-Chir. Review*, 1795 to 1809; and recently a series of Essays on Inflammation.

Henning. — April 22, at Haslar, aged 49, Hamilton Henning, Esq., Surgeon R.N.

Mortimer.—April 25, at Upper South-street, Gosport John Mortimer, Esq., M.D., aged 74, Inspector of Hospitals and Fleets, and late Surgeon of the Royal Naval Hospital at Haslar. M.D. St. Andrew's, 1820; Hospital Surgeon for 30 years at Antigua, Martinique, Barbadoes, and 22 years at Haslar. Author on "West India Fever," 1816.

Richards.—April 25, at Russell-street, Reading, William Henry Richards, Esq., late Surgeon H.E.I.C.S. Madras Establishment, aged 67.

Vidal.—April 16, at Paris, M. Vidal (de Cassis) aged 53. He had for some years past suffered from a painful affection of the kidneys; notwithstanding which, he was able, until lately, to fulfil his duties as Surgeon to the Midi Hospital, and to revise the fourth edition of the "Traité de Pathologie Externe," and the second edition of the "Traité des Maladies Vénériennes." He was the inventor of several ingenious procedures in Surgery, and a frequent contributor to the Medical journals.

Woolryche. — Recently, at Quatford Lodge, Stephen Woolryche, Esq., C.B., Inspector of Army Hospitals.

Marischal College.—The Queen has appointed Mr. James Clerk Maxwell, of Trinity College, Cambridge, to be Professor of Natural Philosophy at the University of Marischal College, Aberdeen.

Asylum for Idiots.—At a meeting of this charity last week, over which Alderman Sir George Carroll presided, fifteen children were admitted into the institution. In the course of the proceedings an appeal was made for increased assistance, upwards of £10,000 being required to furnish the building and to place the charity in proper working order.

Dr. W. Richter, in examination before the Adulteration Committee, said, it was his opinion that the three Pharmacopœias of London, Edinburgh, and Dublin, ought at once to be

abolished, as medicines made up in Edinburgh from a prescription given in London might in some cases be dangerous, there being so great a variation in the strength of medicines, particularly as regarded prussic acid and morphine. In Germany poisons were only sold in proper quantities to a Medical prescription. The system of licensing druggists extended throughout Germany, with the exception of Austria. In Germany a druggist was considered a man of the highest integrity, and was raised to the highest posts of honour. Adulteration ought to be checked in the germ, which got its rise in fraud and sometimes in ignorance. If the importation of impure drugs was prohibited, it would be a benefit to the manufacturers of drugs.

The Poor-Law Surgeons, and Mr. Griffin's Appeal. —Stoke Damerel.—At a meeting of the Medical Officers of the Parish of Stoke Damerel, held at the Devonport Dispensary, on April 21, 1856, present—Messrs. Bennett, Butcher, De Larne, Rolston, the following Resolutions were unanimously agreed to:—1. That, although the Medical Officers of this parish have not that cause for dissatisfaction which exists in many places; yet, they beg to tender their thanks to Mr. Griffin for the zeal and ability he has displayed in the movement on behalf of Poor-Law Medical Reform. 2. That this meeting, without pledging itself to details, approves generally of the principles advocated by Mr. Griffin. 3. That a subscription of 5s. be paid by each present to defray necessary expenses, and repeated as occasion may require. 4. That Mr. De Larne be appointed Local Secretary. 5. That a copy of these Resolutions be forwarded to Mr. Griffin, and to each of the Medical journals.

Yellow Fever.—The British steamer "Argus," which has arrived at Bermuda from Havanna, had yellow fever on board. Lieut. Gallock, Assistant-Surgeon Daly, and six others had already died. The vessel was at Port Islands in quarantine.

The Local Management Act.—On Wednesday night, at the meeting of the Board of Guardians of the Holborn Union, a letter from the Poor-Law Board was read in answer to the inquiry of the Guardians as to the powers and duties of the Medical Officers of Health, under the Local Management Act, to inspect and report on the state of the Workhouse. If the Workhouse be a public edifice within the meaning of the Act, and if the Report of the Medical Officer of Health be addressed to the District Board, and be confined to the mode of ventilating the Workhouse, there appears to be no objection so far to his proceedings. The Board, however, while they incline to think that a Workhouse is not a public edifice within the meaning of this section of the Act, do not find that the Act gives the Medical Officer of Health any right or authority to enter the Workhouse for any purpose without the permission of the Guardians of the Union; and the Board are, therefore, of opinion, that it is competent to the Guardians to decline to admit him into the Workhouse if they should think fit to do so.

Sanitary Camps for the French Army. — The *Moniteur de la Flotte* says, that the camps preparing for the troops about to return from the Crimea are to be established in excellent and most healthy situations. At the distance of thirty-five kilometres from Toulon, along the coast of the Department of the Var, and at the entrance of the Gulf of Jouan, is a cluster of islands called Lerins, the largest of which bears the name of Ste. Marguerite. These points are isolated, and extremely healthy. The air is good, the temperature excellent, and sea breezes temper the heat of summer, which is never intolerable. Such is the *locale* selected for the camps.

Re-vaccination in the Prussian Army during 1855. —During the year 1855, there were 44,581 individuals vaccinated or re-vaccinated. Among these there were observed—

Regular cicatrices in	28,190
Irregular ,, ...	5,657
No results	10,734

A repetition of the operation in these last was followed by—

Success in	2890
No results	7818

Thus, during 1850, of the 44,581 vaccinations, 31,080 were eventually successful, *i.e.*, 63 per 100. No case of true variola showed itself in the entire Prussian army during 1855. There were 7 cases of varicella, and 5 of varioloid, all of which terminated favourably.

Poor-Law Medical Relief.—On the motion of Mr. Abel Smith, returns have been ordered for the years ending March 25, 1853, 1854, and 1855, respectively, of the Medical Officers under the Poor-Law Acts, stating the name of each union, and the name, population, and area, of each district, with the amount of salary and fees received by each officer.

Mortality Notabilia.—The deaths of 1048 persons, namely, 533 males and 515 females, were registered in London in the week that ended on Saturday. The number is almost the same as that of the preceding week. In the corresponding weeks of the ten years 1846—55 the average number was 1029. But the deaths of last week occurred in an increased population; and if the average now stated is raised proportionally, it becomes 1132. The present state of the public health appears, from a comparison of results, to be not unfavourable. A reduced rate of mortality from diseases of the zymotic class affords another satisfactory indication; for the deaths arising from these were last week 194, while the corrected average of corresponding weeks is 231. Typhus is the most fatal in this class at the present time, that disease with common fever numbering 58 cases. The mortality from pulmonary diseases is very near the usual amount at this season, the deaths from them last week having been 196, while the corrected average is 192.

Meteorology.—The mean height of the barometer in the week was 29·775 in. On Sunday and Monday the mean reading was above 30 in., but from the former of these days it continued to fall throughout the week. The *highest* reading was 30·17 in. on Sunday. The mean temperature of the week was 48·5°, which is 0·6° above the average of the same week in 38 years (as determined by Mr. Glaisher). The mean daily temperature was below the average till Friday, when it rose 7·5° above it, and it continued nearly as high on the following day. The *highest* reading of the thermometer in the week occurred on Friday, and was 73°; the highest in the sun on that day was 93·5°. The *lowest* in the shade in the week was 30·6° on Monday; the reading was nearly as low on Wednesday; the range in the week was 42·4°. The mean dew-point temperature was 38·6°, and the difference between this and the mean temperature of the air was 9·9°. The temperature of the water of the Thames rose to 54·2° on Saturday; the mean of the week was 50·9°. Wind generally from the south-east and east till Saturday, when it was in the south-west.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, April* 26, 1856.

Causes of Death.	In the Week ending Saturday, April 26, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	48°·5						45°·5
All Causes	1048	505	141	182	172	27	1023·5
Specified Causes	1022	502	141	181	171	27	1019·6
Diseases:—							
1. Zymotic Class	194	132	22	25	13	2	210·2
2. Dropsy, Cancer, and others of uncertain seat	40	6	7	13	11	3	44·2
3. Tubercular Class	188	72	55	52	9	..	205·2
4. Of Brain, Nerves, etc.	133	64	15	20	30	4	120·0
5. Of Heart, etc.	48	9	6	18	15	..	38·3
6. Of Respiratory Organs	196	116	9	26	40	5	174·7
7. Of Digestive Organs	51	21	9	9	12	..	60·3
8. Of Kidneys, etc.	9	..	5	3	1	..	13·5
9. Of Uterus; viz. — Puerperal Disease, etc.	5	..	3	2	..	..	10·4
10. Of Joints, Bones; viz.— Rheumatism, etc.	9	3	3	3	..	..	10·0
11. Of Skin, etc.	1	..	..	..	1	..	2·2
12. Malformations	2	2	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	31	31	..	..	..	..	22·9
14. Atrophy	32	21	1	1	9	..	25·7
15. Age	39	..	..	..	27	12	45·3
16. Sudden	2	..	..	2	..	..	9·3
17. Violence, Privation, etc.	42	25	6	7	3	1	23·
Causes not specified	26	3	..	1	1	..	8·

DEATHS IN PUBLIC INSTITUTIONS for the Week ending April 26 :—

	Males.	Females.	Total.
Workhouses	64	60	124
Prisons	1	1	2
Military and Naval Asylums ..	9	..	9
General Hospitals	29	25	54
Hospitals for Special Diseases ..	6	7	13
Lying-in Hospitals	1	1	2
Military and Naval Hospitals ..	..	..	..
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	4	5	9

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	10	1	6	..	8
North	490,396	2	2	5	9	3	9
Central ..	393,256	..	5	4	3	2	9
East.....	485,522	4	1	4	7	1	17
South	616,635	2	8	8	9	6	15
Total..	2,362,236	9	26	22	34	12	58

BOOKS RECEIVED.

On the Nature of Cholera as a Guide to Treatment. By William Sedgwick. London: Walton and Maberly. 1856.

The British and Foreign Medico-Chirurgical Review. April. 1856.

An Introduction to Entomology. By Kirby and Spence. Seventh Edition. London: Longman and Co. 1856.

The American Journal of Dental Science. January. 1856.

On Some of the Vices of the Poor-law Medical Relief System. By Daniel Noble, M.D., Manchester. 1856.

Essays on State Medicine. By Henry Wyldbore Rumsey. London: Churchill. 1856.

TO CORRESPONDENTS.

An Old Subscriber.—It is by no means probable that the class of practitioners alluded to would be molested by any of the Bills now before Parliament. They are protected by the Act of 1815, and there is no reason to suppose that the protection would now be withdrawn.

A Correspondent from Bristol will find the lines quoted, in the "Notes and Queries" of our last Number.

Diogenes.—The lines are quite unsuited to our columns. Neither the matter nor the manner is to our taste.

A. B.—The test for alum in bread described in the journal in question is childish and inefficient. Our Correspondent should be cautious not to attack a baker on such evidence.

M.R.C.S.—Our correspondent will observe that we this week resume our insertion of the List, but we cannot hold ourselves responsible for the correctness of the names, since the want of courtesy on the part of the authorities compels us to resort to the public journals for the information.

Mr. W. H. Butterfield, who is a district Registrar, takes offence at some remarks made in our last Number upon the difficulties thrown in the way of the newly-elected Medical Officers of Health by the refusal on the part of the Registrars to furnish copies of the certificates of death without the payment of a fee. Mr. Butterfield has certainly mistaken the tenor of our remarks, since we never blamed the Registrars for demanding remuneration for extra services. We merely suggested that the certificates of death which are furnished *gratuitously* by the members of our Profession, might be left for the inspection of the Medical Officers of Health. We are glad to find that, in several instances, the extra fees to the Registrars have been paid by the District Vestries.

A General Practitioner.—Unless a written acknowledgment of the debt, in the shape of a promise to pay, or asking for time, or pleading inability, has passed from the debtor to you within the period, the Statute of Limitations will bar your claim.

E. M.—You ought to have refused to give evidence until a Coroner's order for your attendance had been handed to you. You have now no title to the fee.

Mr. R. J. Couch.—We are much obliged for the information, of which, it will be observed, we have availed ourselves; and we shall be happy to hear again upon the same subject.

Dr. J. W. Tripe will see the subject of his communication alluded to in another part of our Journal. We regret to find that Dr. Tripe has experienced great difficulty in procuring the returns from the District Registrars, although h asked only for the Certificates forwarded to the Registrars by the Medical Practitioners, and offered to send for them every week.

Mr. J. H. Furnival has kindly forwarded to us a letter, called forth by the late trial of Burgess *v.* Evans, in which it will be recollected that the plaintiff was nonsuited, as he was not a member of the College of Surgeons. Mr. Furnival was himself in practice before 1815, but passed the College in 1809; and an opposition was raised in a Court of Law against his recovering a bill for Surgical attendance; but as he was a member of the College, the opposition was unsuccessful.

Professor Clark, of Aberdeen, published his specification for his patent process for purifying water, in the Repertory of Patent Inventions, October, 1841. The process depends on the fact, that *bi*-carbonate of lime is soluble, but not carbonate; and that, therefore, if lime be added to a solution of *bi*-carbonate, in such a quantity as to convert it into carbonate, the latter is precipitated, and the water freed from such proportion of its impurity as depends on the presence of bicarbonate of lime.

Dr. Beale's Fourth Lecture on the Minute Anatomy of the Liver will appear next week.

J. W.—Cotton wool may of course be advantageously used in certain cases to protect the inner ear from the effects of cold; Mr. Toynbee's object was to show the injury resulting from pressing cotton wool into the meatus, in cases of inflammation with discharge.

We have received the Memorial of the Royal College of Physicians of London to the Right HON. W. Cowper, as Chairman of the Select Committee on the Medical Bills.

COMMUNICATIONS have been received from—

Mr. TAYLOR; Dr. BROWN-SEQUARD, Paris; Mr. MITCHELL THOMSON, R.N.; Mr. P. DE LARNE; Mr. JOHN VALENTINE; AN OLD SUBSCRIBER; Mr. J. LOCKHART CLARKE; DIOGENES; Mr. JOHN WETHERFIELD; Mr. JULIUS JEFFREYS; Mr. THOMAS WESTROPP; Mr. FREDERICK MANBY; Mr. JOHN KEARNS; Mr. CLENDON; Mr. W. B. KESTEVEN; Dr. NOBLE; AN OLD SUBSCRIBER; Dr. TODD; X. X.; A CONSTANT READER; C. L. H. S.; Dr. GEORGE ROBINSON; Mr. W. H. BUTTERFIELD; Mr. CARSTEN HOLTHOUSE; Dr. ROBERT FRORIEP; Mr. F. CRACE CALVERT; THE ROYAL INSTITUTION; F. W.; Mr. H. H. WATSON; Dr. J. W. TRIPE; Mr. R. J. COUCH; THE HON. SECRETARIES OF THE EPIDEMIOLOGICAL SOCIETY; Mr. YEARSLEY; Mr. D. DE BERDT HOVELL; Mr. W. H. FURNIVAL; Dr. BEALE; Mr. HUXLEY; Mr. DEBENHAM; A GENERAL PRACTITIONER; E. M.; HAYNES WALTON, Esq.; Dr. W. MARTEN COOKE; THE GEOLOGICAL SOCIETY; Dr. RAMSKILL.

APPOINTMENTS FOR THE WEEK.

MAY 3. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.: "On Antimonial Poisoning."

ROYAL INSTITUTION, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."

ROYAL BOTANIC SOCIETY, 3¾ p.m.

5. *Monday.*

Operations at the Metropolitan Free Hospital, 2 p.m.

EPIDEMIOLOGICAL SOCIETY, 8 p.m.: A. K. Johnston, Esq., "On the Geographical Distribution of Diseases."

ROYAL INSTITUTION, 2 p.m. *General Monthly Meeting.*

CHEMICAL SOCIETY, 8 p.m.

6. *Tuesday.*

Operations at Guy's, 1 p.m.

PATHOLOGICAL SOCIETY, 8 p.m.

ROYAL INSTITUTION, 3 p.m.: T. A. Malone, Esq., "On Photography."

LINNEAN SOCIETY, 8 p.m.

7. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

HUNTERIAN SOCIETY, 8 p.m.: Mr. C. Ray "On a Case of Œdema of the left leg only, from Compression of the Abdominal Vessels, by Cancerous Growth."

ROYAL INSTITUTION, 3 p.m.

GEOLOGICAL SOCIETY, 8 p.m.: Subjects—1. On the Lignites of Bovey Tracey, Devonshire, by Dr. J. G. Croker; 2. On the Appearances observed on Draining a Mere near Wretham Hall, Norfolk, by C. J. F. Bunbury, Esq., F.G.S.; 3. On the Silurian Rocks of Wigtonshire, by J. C. Moore, Esq., F.G.S.; 4. On a Fossil Track in the Millstone Grit of Tintwhistle, Cheshire, by E. W. Binney, Esq., F.G.S.

8. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

ROYAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."

9. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8½ p.m.: Henry Bradbury, Esq., "On the Manufacture and Security of Bank Notes; with Photographic and Microscopic Illustrations."

ASTRONOMICAL SOCIETY, 8 p.m.

ORIGINAL LECTURES.

LECTURES

ON

THE MINUTE ANATOMY OF THE LIVER.

DELIVERED AT

King's College, during the Winter Session, 1855-56.

By LIONEL S. BEALE, M.B.

Physician to King's College Hospital, and Professor of Physiology and General and Morbid Anatomy in King's College, London.

Lecture IV.

Method of Preparing Specimens to show the Continuity of the Hepatic Ducts with the Cell-containing Network—In the Uninjected Liver—Method of Injecting the Ducts of the Liver and the Cell-containing Network—Directions for Injecting a Liver for Examination with High Powers—Preparation of Specimens for Examination—Of the Structure of the Lobules of the Liver—Evidence of the Existence of a Tubular Basement Membrane in which the Liver Cells are contained.

Gentlemen,—To day I propose to describe to you the manner in which specimens of the liver may be prepared for microscopical examination, and I shall enter into detail even at the risk of being considered tedious, in the hope that some of you may take this subject up, and investigate it practically for yourselves. Moreover, it is important that the method which has been employed in preparing my specimens should be fully described, for upon this alone depends the success of demonstrating the arrangement which I shall describe.

Method of preparing specimens to show the continuity of the hepatic ducts with the cell-containing network.—I have not found it possible to demonstrate the anatomy of the ducts and cell-containing network, about to be described, without previous preparation.

In order to show the minute ducts in an uninjected specimen, it is necessary to harden the liver. This hardening may be effected by placing small pieces in syrup for some weeks, or in dilute alcohol to which a few drops of solution of soda have been added. Of the value of this last mixture I cannot speak too highly. No mode of preparation has afforded me such satisfactory specimens, not only of the liver, but of many other tissues, as the one referred to (a). In this manner the portion of liver is made perfectly hard, but at the same time transparent. A thin section is to be made with a very sharp, thin knife, then slightly washed and examined in dilute alcohol or glycerine. In many of the sections thus prepared, the appearances represented in some of these drawings were produced. The same success is by no means always met with, and it is necessary to examine numerous specimens treated in different ways. Some of my preparations were obtained from the livers of animals in which the duct had been tied some hours before death; and others were taken from organs into the duct of which injection had been gradually forced until it would contain no more. Small pieces were then hardened, and examined after some time.

But, although, in many instances, I was able to satisfy myself of the truth of the point which I have to bring forward, a vast number of the preparations failed altogether, and I could not *demonstrate* the arrangement in every liver which I tried, so that I was determined to resort to new means of preparation. Injection I had tried many times, and had only succeeded so far as consisted in driving the bile into the small ducts. I could not force the injection far enough. The injection usually only reached the surface of the hepatic cell-containing network, and, in many instances, accumulated at this point, in which cases, the appearance of a duct terminating in a blind extremity was produced.

Method of injecting the ducts of the liver, and the hepatic cell-containing network.—Although I felt certain of the correctness of my observations upon uninjected specimens, it appeared to be absolutely necessary to inject both the ducts, and from these the cell-containing network, before their continuity could be regarded as proved. The presence of the bile in the ducts always prevented the passage of the injection into their most minute ramifications, and no long continued pressure, which I applied by means of a high column of fluid, or of a syringe, was sufficient to force this bile through the thin walls of the duct, and give place to my injection. A most imperfect injection or rupture was the invariable result. After some time it occurred to me to endeavour in the first place to force out the bile by injecting the vascular capillaries with water, and, to my great delight, in the very first specimen I tried, the gall bladder soon filled with bile, which also escaped from the common duct. After a short time, almost pure water ran out from the divided duct. The water was allowed to escape from the vessels, and then the liver placed in cloths to soak up the water with which it was saturated. The duct, after the lapse of a few hours, was injected (b). The injection passed readily with slight force, and could be seen entering the lobules upon the external surface. It did not appear gradually round the circumference of the lobule, as is the case when the portal vein is injected, but it formed small roundish points, almost like extravasations, here and there at the outside of the lobules, and then spread for a short distance towards the central part. Upon examining a small piece, the small ducts were well seen, and it was evident that they not only went up to the lobules, but that they penetrated into their substance. Although the injection evidently had not extravasated, the outline of the network was not distinct, and upon examining a thin section with a quarter, only a confused appearance was visible, and I was unable to demonstrate the relation of the cells to the ducts and to the vessels. Before I could hope to make out this point, it was clearly necessary not only to inject the ducts, but to inject them in such a manner that they would bear examination with the higher powers (at least a quarter). After trying unsuccessfully many opaque injections, it occurred to me that a transparent injection might be found to succeed better. Gamboge, carmine, cochineal, lake, and some other colouring matters were employed, but the adjacent textures were equally coloured, and the point could not be decided. Freshly-prepared Prussian blue was tried, and with much better success. Now, however, a new difficulty presented itself. The thinnest sections which could be obtained, consisted of several planes of the cell-containing network and capillaries, and, in consequence of the distension of the former by the injection, the latter could not be distinguished. I then injected both the portal vein and the duct; the former with plain size, and the latter with Prussian blue. In several sections I was fortunate enough to see most clearly with a quarter of an inch the blue transparent injection in one tube in close juxtaposition to an injected capillary vessel. By varying the kind of injection, and resorting to many experiments which it would be useless to recount, I have gradually arrived at a method by which specimens can almost always be obtained which will bear examination with a quarter, or even an eighth of an inch object glass. Often when too great force is employed, rupture of the walls of a small duct occurs, when the injection passes into a lymphatic vessel, and in this way, as was shown by Kiernan, the abundant plexus of lymphatics in the large portal canals can always be injected. In one instance the injection passed into the thoracic duct. A similar result occurred to me likewise in a rabbit. This accidental injection of the lymphatics has been noticed by many, since Mascagni found injection thrown into the ducts returned colourless by the absorbents. I have not been successful in endeavouring to ascertain how the lymphatics commence in the liver, and have not yet seen them distinctly in portal canals less than the quarter of an inch in diameter.

Directions for injecting a liver for examination with high powers of the microscope.—The portal vein is to be injected with tepid water until the whole organ becomes nearly co-

(a) The advantage of this solution seems to depend upon the opposite action of the two fluids. The alcohol precipitates albuminous compounds, and renders them hard and opaque. The soda, on the other hand, softens and dissolves them, rendering them transparent. In conjunction, these operate in rendering the tissue quite hard and transparent at the same time. I am still prosecuting experiments with this fluid. Large preparations have been preserved in the alkaline fluid with advantage.

(b) I have examined the water which escaped from the duct upon several occasions. It always contains a large quantity of cylindrical epithelium, and sometimes circular cells from the small ducts are to be found; but I have never met with specimens of liver-cells, which is easily accounted for, when we consider the small calibre of the smallest ducts. In rare instances these are, no doubt, much larger than natural, in which case the entrance of the hepatic cells would not be prevented. I see, therefore, no reason to doubt the accuracy of Mr. Wharton Jones's observation, although I am unable to confirm it from actual observation.

lourless, and water only slightly tinged with blood escapes from the hepatic vein, while at the same time almost pure water runs out from the gall duct. The force used must be as gentle as possible, for, otherwise, some of the minute vessels will be ruptured, and the preparation will not succeed. The water is then allowed to escape from all the vessels, and the liver wrapped up in two or three soft cloths, which will absorb much more water; these are to be changed when soddened with water. In the course of from twelve to twenty-four hours, the liver appears shrivelled, and of a soft clayey consistence, and is ready to be injected from the duct. A mixture of about two-thirds water and one-third spirit, in which recently precipitated Prussian blue is suspended, is strained through two or three layers of the finest muslin, and carefully injected into the duct, applying slight, but gradually increased, pressure. The injection should be performed with a small half-ounce or ounce syringe, or by pressure of the fluid placed in a glass tube about four feet high.

As soon as the blue injection is seen at several points at the circumference of the lobules, and more fluid cannot easily be forced into the duct, it is better to wait a few hours, and then inject a little more; but the injection of the duct must not be pushed too far, for although in some places no colour whatever is to be seen, in other parts a good injection has, perhaps, been effected. After the duct has been injected, the liver is again set aside for a few hours in damp cloths, so that the superfluous fluid may be absorbed.

The Prussian blue is prepared in the usual way, by adding gradually a solution of ferrocyanide of potassium to a very dilute solution of perchloride of iron. The mixture should be of a dark colour, but should contain no flocculi. It should not deposit a precipitate until it has been allowed to stand for some time. Without care an abundant deposit of Prussian blue is obtained, which does not flow well. The mixture should have the appearance of a dark blue solution, rather than of a deposit held in suspension. The spirit should be added slowly, and the mixture well stirred. The addition of a little spirit has the advantage of hardening the delicate walls of the smaller ducts as the injection passes into them, and thus preventing their rupture. The great advantage of the Prussian blue arises from the circumstance that the precipitate is so fine as to appear like a solution; but still the minute particles cannot be made to pass through the basement membrane of the ducts.

After the duct has been injected in the manner above detailed, the liver is placed in warm water, and allowed to become warm through, when the portal vein and hepatic artery are to be injected with fine size. If the injection of the duct has been well conducted, the fluid which escapes from the hepatic vein will not have the slightest blue tinge; but if this should be the case, we may still proceed, as it often happens that, although extravasation has occurred from the duct into the vessels, this has only happened in one small part; and as the vessels do not anastomose, it only affects the lobules supplied by the branch of vein in which the opening has been made.

When size runs out at the hepatic vein, the open end of the latter may be tied, and a little more carefully injected into the portal vessels, in order to distend the capillary plexus. Lastly, a little size is injected into the duct. When the liver appears filled, it may be placed in cold water until the size sets.

By varying the plan above described somewhat, the different vessels may be injected with different colours. I have succeeded in injecting a human liver with four colours. The portal vein is injected with flake white, the artery with vermilion, the hepatic vein with lake, and the duct with Prussian blue. From this liver I have obtained specimens, showing well many of the points which I referred to, and have been able to preserve many of the preparations.

Preparation of specimens for examination.—When the ducts and portal vein have been successfully injected in the manner described, the greatest care is required in preparing the section for examination. A very sharp knife, or Valentin's knife, in good order, may be employed. The thinnest section, after very careful washing, must be placed in a drop of syrup, or glycerine, and the glass cover so applied as to press very slightly upon the specimen. If the washing be not carefully conducted, the superficial cells will be removed, and the vessels will collapse. On the other hand, if all the cells and *débris* adhering to the surface of the section are not removed, the preparation will appear confused and indefinite. The sections should bear examination with a quarter or eighth of an inch object-glass.

It is, of course, very difficult, and, in great measure, a matter of chance, to obtain a section including the course of the smallest duct, and it will often be necessary to examine very many sections before a demonstrative specimen can be obtained.

Of the structure of the lobules of the liver.—The lobule itself consists of a solid network of capillary vessels in the meshes of which the liver cells are seen. Towards the central part of the lobule the cells assume a more linear direction, and appear to radiate from the intra-lobular vein as from a centre. It has long been a question whether the cells simply lie in the meshes of the capillary network, or whether they are enclosed in tubes of basement membrane. The cells are prone to become detached in the form of little columns which are often branched, an appearance produced by the manner in which they are fitted into the vascular meshes. In these detached masses it is not easy to demonstrate a basement membrane, and their production has been accounted for by a supposed adhesion of the cells to each other. Among the authorities who have advocated the existence of a basement membrane may be mentioned Krükenberg, Schröder Van der Kolk, Retzius, Weber, Theile, Backer, and Leidy; but the majority of modern writers have been led to an opposite conclusion, and deny the existence of such a membrane.

Evidence of the existence of a tubular basement membrane in which the liver cells are contained.—It is not uncommon to find cells with shreds of delicate membrane attached to them in specimens which have been slightly hardened in dilute alcohol. In this diagram is represented a cell from the rabbit's liver, enclosed in a membrane which can be traced beyond it for some distance as a very narrow contracted tube.

This delicate basement membrane is also well displayed in certain specimens in which a curious chemical change has taken place in the contents of the tube. In a section of dog's liver which had been soaking for some time in a weak solution of soda, the outer part of most of the cells appeared to have been dissolved, and, in consequence, a fusion of their contents had taken place, causing the formation of a highly refracting mass within the basement membrane, the outline of which was rendered very distinct. This preparation is represented in this diagram, and here is shown one of the tubes separated and drawn out, with its contents contracted within it, so that the membrane itself can be seen.

In this drawing a somewhat similar change is shown in the liver of a flounder which had been treated with soda, and afterwards by acetic acid, causing the precipitation of some of the constituents of the bile, which had been previously dissolved by the soda. By pressure, some of these highly refractive masses were broken, and by examination with a very dull light the continuity of the delicate basement membrane could be traced between them. When sections of liver have been soaked for some time in strong syrup or glycerine, the cells in the interior of the tubes shrink from exosmose, and the delicate tubular membrane contracts upon its contents. The tubes, therefore, become much narrower, and, except in the highly refracting nature of their contents, the altered cell-containing network closely resembles the capillary network.

Here is a somewhat similar alteration, as it occurred in a section of pig's liver:—

In a properly prepared liver it is often possible to demonstrate the cell-containing network in one section, and the capillary network in another. When the vessels are distended with clear size, the meshes of the cell-containing network are seen; but, if a section be well washed and placed in glycerine, the sharp, well-defined outlines of the capillary vessels are brought into view. In such a section, from which the cells have been removed, I have seen, in some places just at the thin edge of the specimen, stretched across the space between two capillary vessels, the exceedingly delicate basement membrane of the tube in which the liver-cells lie, recognizable rather from the small quantity of *débris* and granular matter which adheres to it, than from any positive characters distinguishable in the membrane itself. This appearance can only be seen under the influence of a very dull light.

The network is capable of being distended to a considerable extent in every part of the lobule without rupture. Often the injection accumulates to such an extent as completely to obscure the cells; and in consequence of the pressure thus caused, the vessels are rendered invisible. Even in such

specimens, the appearance cannot be mistaken for extravasation or vascular injection. In tubes which are only partially injected the injection often accumulates a little on each side, gradually shading off, as it were, towards the centre; while towards the adjacent capillary vessel it forms a distinct, well-defined, and dark line.

The cells which escape into the surrounding fluid from an injected specimen have portions of injection adhering to them, or are deeply stained with it.

A portion of the cell-containing network of the human subject is here shown. The cells represented in the first drawing are much altered, from the mode of preparing the specimen. Their position, however, is shown. In the pig, portions of the cell-containing network in different states are represented in these diagrams; and here, in the seal, rabbit, and in the dog.

If a section be made through the hepatic tissue exactly at right angles to a small branch of the intralobular vein, the cells are seen to form rows, which radiate from the centre towards the circumference of the lobule, as has been noticed by Müller, Valentin, Bowman, Theile, Gerlach, and others. In sections made in other directions, this radiated arrangement is not to be shown. This drawing is an exact copy of a section of horse's liver, and is the most beautiful specimen of this arrangement which I have seen. The rows increase in number as they pass from the centre. They are connected at irregular intervals by oblique or transverse branches, often much narrower than a cell, and containing only nuclei and granular matter. These communicating branches are best seen in injected specimens. The cells of which these rows are composed for the most part form single lines, although here and there, where the tubes are wider than usual, two cells may be seen lying transversely across the tube. Such a specimen shows the existence of tubes in the lobules of the liver, almost as distinctly as a preparation of the kidney.

In a specimen in which these radiating tubes had been injected, not only was the existence of a basement membrane proved, but one distinct from, and not adhering to, the walls of the capillary vessels. Although the meshes of the capillary network are slightly elongated towards the centre of the lobule, such an arrangement could not produce the appearance observed; for if the cells lay promiscuously in the meshes of the capillaries, without being circumscribed by any basement membrane, the radiating lines would necessarily be connected transversely by very numerous cells. Some of these tubes from the human liver are represented in this drawing, which was taken from an injected specimen (c).

The contents of the cell-containing network are liable to considerable alterations in volume, a change which can be readily effected artificially. In the same specimen, the diameter of the network varies to a limited extent, according to the size and number of the cells within the basement membrane. It is usually about $\frac{1}{1000}$th of an inch in diameter in most mammalian animals, and is considerably wider than the narrowest part of the smallest ducts with which it is immediately continuous. The width of the spaces between the tubes of the network, or, in other words, the diameter of the vessels, varies much in different parts of the lobule of the human liver, being much wider at the portal surface of the lobule, where the small branches of the veins enter, than at a greater depth, where capillaries are alone found. This point is shown in these sections from different parts of the lobule of the liver of the fœtus.

In the fœtus there is a distinct interval between the wall of the tube in which the secreting cells lie, and that of the capillary vessels, so that when a good section is obtained, two distinct lines are seen between the hepatic cells and the cavity of the capillaries. These two lines are separated by a transparent, apparently structureless substance, in which no trace of fibres can be detected. These circumstances impress one with the notion that the liver is originally composed of two distinct networks, which intimately interdigitate with, or fit into, each other—one containing the secreting cells, the other the blood. The walls of these two sets of tubes gradually become incorporated, except in those situations where the capillary network is less dense, or where the meshes of the cell-containing network are more widely separated from each other, in which cases a distinct limitary membrane to the tubes containing the liver-cells can be demonstrated in the adult. The cell-containing network and the vascular network can be alternately distended. The membrane is very permeable to *water* in both directions, as I have proved by first forcing fluid from the vessels into the duct, and afterwards in the opposite direction. Subsequent injection proved that no rupture had taken place. Nevertheless, the greatest force which can be applied will not cause the bile to pass through this delicate membrane into the capillary vessels.

Under some circumstances, then, it is demonstrable that the basement membrane of the cell-containing network is distinct from the walls of the capillaries; but in the greater part of the lobule, where the two membranes come into close contact, they are incorporated, so that really the majority of the liver cells, except when they are in contact with each other, are surrounded with blood, from which they are only separated by one thin layer of delicate structureless membrane.

Such are the facts to be adduced in favour of the existence of a tube of basement membrane, in which the liver cells lie. According to this view, bile formed at any part of this network would find its way between the cells and the tube of membrane to the margin of the lobule. According to the other view, the bile formed in the more central part of the lobule is supposed to be transmitted from cell to cell, until at last it reaches those at the circumference of the lobule, and it is further concluded that, in its transmission, it becomes elaborated. If, then, bile were formed by being passed on from cell to cell in this manner, it would follow that the materials from which the crude bile are first formed must be separated from the blood in the more central parts of the lobule; and, therefore, that the blood, rich with recently absorbed constituents, passes through a considerable extent of the capillary network to no purpose.

From the anatomy of these parts, the precise point of the most active formation of bile should be the outer part of the lobule, for the blood reaches this part first. As we proceed, we shall see that this is probably the case. Argument alone would render the existence of such a membrane probable; but, by careful observation, its presence may be actually demonstrated.

In the next lecture, I shall have to speak of the contents of the network of basement membrane, the arrangement of the most minute ducts of the liver, and the manner in which these are connected with the cell-containing network.

(To be continued.)

(c) I have not been able to demonstrate the presence of cœcal tubes connected with the branches of the network in the lobules of the liver; but from the arrangement of those of the vasa aberrantia, before described, and from other appearances which I have observed, I think it probable that such exist in small number.

ORIGINAL COMMUNICATIONS.

ON PROLAPSUS OF THE UTERUS, AND OF THE BLADDER.

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Under these heads I purpose making a few observations of a purely practical nature. Of "Prolapsus of the Uterus," I shall speak of two kinds—of partial prolapsus, that is, where the uterus descends to, but does not extrude from, the os externum; and the other, where it actually extrudes and falls between the thighs.

It is not my intention in the present paper to dwell generally on each of these various conditions, as I have already fully explained them in my work "On Some Diseases of Women;" but it is to illustrate, practically, by a series of cases, the novel operations which I there describe for the radical cure of these troublesome affections.

I shall purposely avoid alluding to the various modes of treatment of a palliative nature, whether of the pessary, of the truss, or of the perineal bandage, as recommended by many authors, and deservedly so, as frequently affording great comfort. I purpose to show, that where one or all of these various plans fail to effect a cure, we may safely rely on the results of plastic Surgery.

Case 1.—Sarah W., aged 33, admitted March 31, 1854, into the Boynton Ward, St. Mary's Hospital. Ten years ago was

delivered of her first child. She states that her labour was natural, and of six hours' duration. About three weeks after her confinement she resumed her occupation as "maid of all-work," and continued in her situation for two months, when she suffered from leucorrhœa and bearing down of the womb, with considerable pain at times, menstruation being regular, though tedious. She continued to work for about a year, in spite of this affection, when, becoming weak, she applied for Medical aid, and left her situation, the uterus now protruding externally. She had worn pessaries for the last eight years at intervals, and also a truss for prevention of the prolapsus, but these only relieved her for a short time, and sometimes caused so much irritation as to oblige her to remove them. She stated also that for the last eight years she had been unable to retain her urine, passing it by drops every half-hour with great pain. About three weeks ago, feeling herself very much worse, she applied for relief, and was admitted.

April 5.—She was operated on in the usual way, under chloroform. The patient was put to bed; opium given, wet lint applied, and a catheter, with a long bag attached, introduced. Seven p.m.—A great many clots have passed, and there is a constant oozing of blood, notwithstanding local applications of ice, and the free sucking of it. Ten p.m.—The blood has apparently ceased to flow. Feels very weak; complains of much pain. Ordered 2 ounces of wine.

6th.—Very little blood last night was lost. One of the quill sutures, it was discovered this morning, had given way, through the entanglement of the cold cloths applied last evening for the bleeding. Ordered 4 ounces of wine, lemonade, and 2 ounces of brandy. Effervescing draughts were ordered.

7th.—Much better. On the 8th the quill sutures were removed. On the 10th, feels pretty comfortable. The interrupted sutures were removed. Union of the parts only taking place at the posterior half of the wound.

18th.—The bowels acted to-day the first time, after taking castor-oil.

25th.—The wound is healing, and she appears and expresses herself as comfortable.

May 6.—Allowed to get up.

8th.—In walking about she suffers no protrusion, and has no bearing down pains.

22nd.—Discharged. She suffers no inconvenience from walking, but feels something pressing down on the perinæum; when standing up suffers no bearing down pains. She is in much better health than when admitted. She is advised to wear something which may support the parts, for some little time, and to abstain from her employment for about a fortnight.

Remarks.—It will be observed that the immediate result of this operation was not so complete as was to be expected, from the fact of one of the sutures (the anterior suture) having been torn out, as described; still the relief was so great, as to prevent any protrusion; and it was found, some weeks after, on the patient presenting herself at the Hospital, that she was in most perfect health.

Case 2.—Sarah A., aged 48. Admitted, October 3, 1854, into the Boynton Ward, St. Mary's Hospital. Eighteen years ago, after a very prolonged and painful labour, had slight prolapsus uteri, for which she wore a pessary, until about two months ago, when she was attacked with fever, and became a resident at the Marylebone Infirmary. There the prolapsus greatly increased, and she was recommended to place herself under my care at St. Mary's Hospital. On examination, the whole contents of the vagina were found protruding in the form of a pyriform body, composed of the uterus, bladder, and vagina. Around the margin of the os uteri slight ulceration existed.

11th.—The patient was operated upon in the usual way, under the influence of chloroform, and having been placed in bed, was ordered 2 grains of opium directly, and 1 every four hours. At ten o'clock, rather stupified by the wine, opium, and chloroform. Complains of pain, but not more than could be expected. Pulse good.

12th.—Slept at intervals comfortably during the night. Feels better this morning. Pulse 90. Continued the pills, and the diet, strong beef tea, and four ounces of port wine daily.

13th.—Slept well; the parts looking healthy.

14th.—A slight puffiness about the seat of operation. In all other respects well.

15th.—The deep sutures were removed. All appearances good.

16th.—Interrupted sutures removed. Perfect adhesion of the whole extent was evident.

17th.—Everything going on well.

30th.—On examination it was found that the parts were quite healed, internally and externally, and the uterus almost in a normal condition, and considerably reduced in size. Ordered a pint of porter and 10 drops of tincture of ferri muriatis in water, three times a-day, and a lotion containing tannin, to be injected three times a-day.

November 18th.—Everything looking well and sound, the patient being very much better, and in a healthy condition. She was discharged on the 30th perfectly cured. The patient subsequently presented herself at the Hospital for examination, in good health; with increased flesh, and stated that she had not the slightest bearing down, and was able to pursue all her ordinary occupations with comfort.

Remarks.—I think it is not too much to say, that no other treatment yet known in Surgery could have so effectually and completely effected the cure as the one herein adopted.

Case 3.—L. F., aged 20. Was admitted into the Boynton Ward, December 12, 1854. Has been married twelve months. Has one child, now at the breast, three months old. Her health has been good up to the time of her confinement, which was a long one of four days' duration, the child being very large. A month after her delivery, she noticed that something came down, which caused great difficulty in walking. On examination, it was found to be the uterus protruding externally, the constrictor vagina and a small portion of the perinæum having been torn at the birth of the child.

13th.—The usual operation was performed.

14th.—She has passed a restless night, suffering much pain in the parts, with thirst and heat of skin.

15th.—Has not slept much through the night. Complains of pain in the head, and giddiness. The parts look well, and feel comfortable and free from pain. Has taken three opium pills during the day.

16th.—Has had a better night, and feels altogether comfortable. The superficial sutures were removed.

18th.—Had a good night, feels much better. The deep sutures removed. The parts are looking healthy.

21st.—There is considerable purulent discharge; but of a healthy nature. Chloride of lime lotion ordered to be used, and the bowels to be relieved by an injection.

22nd.—The discharge is not so much to-day. Has had a good night's rest. The bowels have been relieved freely this morning.

23rd.—Feels very comfortable. The discharge less in quantity, but healthy. From this time she gradually improved in health, and a month after the operation was discharged from the Hospital perfectly cured. It will be remarked here, that although the affection was of recent date, still it created considerable suffering.

Case 4.—Ann T., aged 49. Was admitted into the Boynton Ward, St. Mary's Hospital, on April 17, suffering from procidentia uteri. On examination, the uterus, somewhat enlarged, is found to protrude bodily from the vagina when she is in the upright posture. And she states, that when coughing it will descend even in the recumbent posture. She is very thin, and of very lax fibre, so that little or no resistance is offered to the descent of the womb, either by the vagina or perinæum. The protrusion is complete. She has had three children, the last of which was born suddenly, without assistance. At that time the womb very much prolapsed, and since then, eight years ago, it has gradually grown worse. She has worn two pessaries of different kinds for four years, which she says at first answered very well, but after a time ceased to afford her any comfort and relief. Her general health is bad. She is subject to diarrhœa and vomiting, and is a very weakly, ill-nourished person.

May 9th.—Her general health having somewhat improved, the operation was performed in the usual way; 2 grains of opium were given, and the usual catheter introduced into the bladder. In the evening the parts looked well, and the patient expressed herself as being comfortable. To have 4 ounces of wine, and beef jelly daily. Has had a tolerable night, having slept for two or three hours. Tongue looks cleaner than before the operation. Parts very well. Skin cool and moist.

11th.—Had a good night; is feeling and looking well. Parts healthy.

12th.—As the track of the deep sutures appeared to be suppurating, they were on this day removed. Adhesion by the first intention has taken place very satisfactorily.

13th and 14th.—All well.

15th.—Interrupted sutures removed.

19th.—Discharged, to all appearances perfectly well.

Remarks.—It will be scarcely possible to find a case where the operation afforded greater relief to the patient than this; and a very striking and marked feature in her case was, that of her gradually and steadily improving in health and condition, during the process of the cure. She has subsequently presented herself at the Hospital, in rude health, declaring that she had never better health in her life, and was able to pursue laborious occupations. She also stated, that she has been asked at church twice, being about to be married.

Case 5.—Mary Ann C., aged 28. Was admitted into the Boynton Ward, St. Mary's Hospital, on June 2, 1855. In April, 1854, she was delivered of her first child, after a lingering labour. She was very weak, and did not begin to sit up for three weeks after her confinement. Very soon she observed the womb was low down, and she suffered from bearing down pains, and difficulty in making water. These symptoms increased until about four months after her delivery, when the womb suddenly protruded while she was walking, and she then fainted. She was admitted an out-patient on May 2, when her general health being unsatisfactory, she was given tonics and cod-liver oil. There were symptoms of commencing phthisis.

June 20th.—The usual operation was performed, and the usual after treatment adopted.

23rd.—The deep sutures were removed; and on the 25th the interrupted ones.

30th.—The bowels were opened by a dose of house-medicine and a clyster.

July 2.—Progressing very favourably, the tracks of the deep sutures almost entirely healed, the parts appear firmly united, and the patient's general health is manifestly better than before the operation.

July 4.—The sutures entering the labia minora removed, and the catheter discontinued.

10th.—Got up for an hour.

30th.—Was discharged perfectly well.

Remarks.—It will be seen that this patient's health gradually and steadily improved after the operation. And this has been found a constant and marked feature resulting from the treatment, that, whereas their health has been reduced by their continued suffering from prolapsus of the uterus, so soon as they are relieved by the operation, the health invariably improves.

Case 6.—Mary F., aged 41, was admitted into the Boynton Ward, St. Mary's Hospital, on July 12, 1855. Has suffered from prolapsus for twenty years. About two years ago, the uterus protruded bodily from the vagina. After each pregnancy the prolapsus became somewhat better; but afterwards the uterus came down again as much, if not more, than ever. Has suffered from leucorrhœa during the last two years, and at all times has been subject to menorrhagia. General health has been tolerably good until lately; experiences great difficulty in walking. On examination, the uterus was found considerably enlarged, and on the slightest upright posture of the body, or even in a recumbent posture, after coughing, protruded from the vagina.

18th.—The usual operation was performed.

19th.—Has passed a good night, and the parts look healthy.

20th.—Continues to do well.

21st.—The deep sutures were removed; the parts evidently firmly united.

29th.—The bowels were relieved for the first time.

On August 10 she was discharged perfectly well.

Case 7.—Julia B., aged 50. Was admitted into the Boynton Ward, St. Mary's Hospital, suffering from procidentia uteri.

History.—Is a married woman, and has had twelve children, the last fourteen years ago. Thirty-two years ago,—that is, after the first labour,—the womb began to come down, and gradually came nearer and nearer to the os externum, through which it at last protruded bodily. Fifteen years ago was subject to leucorrhœa, and again within the last nine months. Has worn different kinds of pessaries for the last nine years, but the quoit-shaped pessary only appeared to suit her. Two months ago she had an attack of metritis, which her Medical attendant attributed to irritation produced by the pessary; since then she has ceased to use it. On examination, the uterus was found enlarged and protruding, receding within the vagina when the patient is in a recumbent posture, and extruding when she stands up.

August 8.—The usual operation was performed.

9th.—Has slept well; parts looking well, and she feels comfortable.

10th.—Great tympanitis of the abdomen, and incoherence. The pulse is slow, and there is some sickness. At one o'clock twelve leeches were applied to the abdomen. Castor-oil given, and a dose of calomel ordered at bed-time. The opium discontinued. At ten o'clock in the evening, more coherence and less tympanitis. More pain, but this latter owing to the improved condition of the brain. Pulse rather quicker. Ordered grey powder, and extract of henbane every six hours.

11th.—The bowels relieved. Tenderness, pain, and swelling much better; the countenance natural and more cheerful. In the evening still better. The deep sutures removed.

12th.—Going on well.

13th.—The superficial sutures removed; discontinued the mercurial; ordered to take a grain of opium occasionally.

18th.—She has some pains in the colon, which were removed by fomentations and aromatic medicines.

20th.—Doing very well. Ordered 1 pint of porter, in addition to the 4 ounces of wine ordered on the 13th.

September 12.—She was discharged cured, in perfect health, with no bearing down or protrusion during walking.

Case 8.—E. M., aged 21; unmarried, and has never borne a child. Was admitted into the Boynton Ward, St. Mary's Hospital, on April 28, 1855, suffering from complete prolapsus of the uterus. She states that the affection first showed itself six years ago, since when it has steadily and progressively become worse. Numerous instruments have been tried by various Practitioners, without any beneficial effects. She has great pain in defecation, with great bearing-down pain in the loins, thighs, and abdomen. The latter pain, she says, is a dragging pain, as if her inside were being torn. The uterine functions have, from time to time, been seriously deranged. Menstruation has sometimes occurred every fortnight, and in large quantities, while leucorrhœa has been constant for the last two years. A complete descent of the uterus took place two years ago, having been preceded by a prolapsus of the posterior wall and bowel. At times she has been unable to pass her urine; but, on the whole, she has had tolerable comfort over the bladder, except when the womb was down.

May 2.—The usual operation was performed, followed by the usual after-treatment.

6th.—The deep sutures were removed.

8th.—The superficial sutures were removed.

14th.—The opium was discontinued, and bowels opened for the first time. The union is complete. The patient's health has seemed almost unaffected by the operation, and the new or supplementary perinæum seems firm. The sutures in the region of the labia minora were allowed to ulcerate of themselves. This operation was not attended by the desired success. After a short time the bowel and uterus again prolapsed, and the uterus at last became almost constantly protruding. Bichloride of mercury and occasional leeching were resorted to to diminish the bulk of the womb, in the hope that, when reduced, it might, with the use of stringent injections, remain *in situ*.

June 25.—The uterus is rather less in size, less painful and tender; is still very much indurated. It has not prolapsed now for two or three days. A rectum bougie introduced was arrested by the enlarged uterus, about two or three inches from the anus.

July 14.—A second operation was performed, for the purpose of extending the supplementary perinæum, so as to close up very nearly the entrance of the vagina, merely leaving a sufficient orifice for the flow of the catamenia, the patient being quite willing to forego all matrimonial prospects. This operation was followed by considerable sickness, with abdominal pain and tenderness; but they all subsided under the ordinary treatment.

17th.—The deep sutures were removed.

18th.—The bowels were cleared out by injection.

20th.—The superficial sutures were removed. From this time she steadily progressed, and on the 7th August was discharged. The prolapsus has not again made its appearance.

The uterus is still too large and heavy, but appears to be gradually diminishing. General health very good.

Remarks.—This case was one of no ordinary nature. It was the first that I had ever seen of any severity in an unmarried female who had never borne children. It commenced by a prolapse of the posterior wall of the vagina (a very common commencement), followed by the bowel; and, after four years of continued suffering from this affection, the uterus followed, and ultimately protruded.

It will be observed by her history, that she had tried every artificial means, but without effect. It is apparent, therefore, that nothing but this *plastic* operation would have afforded her any real benefit.

It will be remarked, that the second operation almost entirely closed the vaginal orifice; but still, as that was done advisedly, by the desire of the patient herself, it may be held as not only justifiable, but to be adopted on a similar occasion.

Case 9.—E. M., aged 30, was admitted into the Boynton Ward, St. Mary's Hospital, November 10, 1855, complaining of complete prolapsus of uterus.

Six years ago she was delivered of a female child, a very small one, but carried to its full time. The labour only lasted twelve hours. Nothing happened to make the patient suppose that anything untoward had occurred. It was a primiparous case.

For three months after labour she had great difficulty in getting about, owing to a soreness in the parts, and bearing down pains, with sympathetic lumbar and crural pain. She then began to get somewhat better; but, at the end of twelve months, the bearing-down returned, and she felt the womb very low down. Very profuse leucorrhœa now came on, and lasted four months, at the end of which time she was very much weakened. The discharge, however, was remitted by medicines and astringents; and, at the end of three years, the prolapsus had increased so much, that she was induced to try the effect of a pessary; but it produced so much irritation, discharge, and soreness, that she was compelled to discontinue its use. At the end of three years and a-half, the womb became completely protruding. Leucorrhœa has been persisting since then, while all the previous uncomfortable sensations have been aggravated. During the whole six years since her labour, the catamenia have been regular, but extremely scanty.

On examination, the uterus is either protruding between the thighs, or retained within the pelvis, according to the position of the patient. There the tumour was constantly to be felt at the ostium vaginæ, or projecting somewhat, which consists of a prolapsed bladder, with its mucous, covering the anterior wall of the vagina. Behind the tumour, the os uteri is felt, varying in distance according to the previous position of the patient. When the uterus protrudes, it is found to be enlarged and abraded; but the perinæum is ruptured down to the sphincter, leaving that structure and the narrow band of integument entire.

November 14.—The usual operation was performed. Complains of nothing but smarting of the parts. The usual treatment followed.

17th.—The deep sutures were removed. The tracks of both appear rather sloughy, and the discharge is free. Catamenia have appeared. There is considerable tenderness about the abdomen. The pulse 100 in a minute. Sinapisms to the abdomen. Grey powder and Dover's, with a saline mixture, ordered.

18th.—Is much better; skin moister.

20th.—The superficial sutures removed.

From this time the patient has steadily and gradually improved in health. She has taken bichloride of mercury with bark, and the uterus is considerably decreased in size and hardness. The leucorrhœa is very much better; the patient's health is good, and she will shortly leave the Hospital, apparently perfectly cured. This is one of the worst forms of complete prolapsus that could be met with, depending, not only on the enlarged uterus itself, but on the absence of the floor of the vagina, from the partial loss of the perinæum.

A great practical fact is illustrated by this case, that every case of ruptured perinæum, if extending beyond the constrictor vaginæ, that is, destroying the transversalis muscle and the neighbouring tissues, should be cured as soon as discovered, to prevent the more or less certain descent of the vagina, or of the uterus.

I shall now proceed to offer a few cases of vaginal cystocele, or prolapsus of the anterior wall of the vagina, followed by the bladder:—

Mary H., aged 55, a laundress; admitted April 4, 1854. Is the mother of seven children, the youngest being 12 years of age. All her labours she describes as quick and favourable. About eighteen months ago, she experienced pain in her back, of a dragging nature, till about three months ago, when she became worse, when there was prolapsus beyond the vulva, about the size of an egg. She had no advice; and the prolapse has been gradually increasing, and now she states it to be as large as her fist. She attributes her present condition to having lifted a very heavy weight eighteen months ago, and fancies she heard something snap at the time.

5th.—She was operated upon in the usual way. A catheter was introduced, and constantly retained there.

8th.—The quill sutures were removed.

11th.—The interrupted ones were removed.

18th.—The bowels were relieved by the exhibition of castor oil.

25th.—The parts were quite healed, and she is going on well.

May 1.—She is now allowed to lie outside the bed.

On the 4th, when standing up, there is no protrusion of the parts; but she still suffers from bearing-down pains when in the erect posture, for which she is ordered to keep in the horizontal position for a fortnight before resuming her occupation.

On the 23rd she presented herself. There was no protrusion of the parts; the wound is well closed; complains of no pain; and looks and feels altogether a different woman. She now follows her employment with great comfort.

Remarks.—No one who has not seen the patient could realize to themselves the marked improvement in her general health and expression of countenance which was so strikingly evinced after the success of the operation; and I have reason to know that she has continued perfectly well to this time.

Ellen M'K., aged 28, mother of three children, admitted May 6, 1854. About six months after her second confinement she was affected with a sense of fulness and pain in the vagina. This she supposed, with the attendant swelling of the parts, attributable to her not getting sufficient rest after her labour. These symptoms continued, which were relieved by lying down for five months, at which time there was a tumour about the size of a hen's egg protruding the vagina. At this time she became pregnant; her symptoms were relieved, and the tumour went away; but since her last confinement, thirteen months ago, it had increased, re-commencing three weeks after her confinement. Her occupation compelled her to move about, and the tumour increased, and at the present time is of the size of a fist. It protrudes when she is in the erect posture, but recedes when lying down; whenever she bears down the tumour protrudes. For the last thirteen months she has had a white discharge from the vagina; and, being in great quantity, has made her very weak. She has had great difficulty in making water; being always obliged to press the tumour far back before doing so. There was never any great flow of urine at any time; and the consequence was, that she always had a desire to pass it.

On examination it was found to be prolapsus of bladder with the anterior the wall of the vagina; and posteriorly the lips of the os uteri were seen; there was no rupture of the perinæum.

May 31.—The usual operation was performed, and the usual after-treatment followed, and everything steadily and satisfactorily progressed. In the course of six weeks she left the Hospital, without the slightest inconvenience.

I have seen her on several occasions since then, and she has again been delivered of a child, and has had no return of the prolapsus.

Remarks.—This case is highly interesting from the fact of a second confinement having produced no return of the disease; and also from the fact, that the elongated perinæum offered no obstacle to her delivery, as I found, upon examining her afterwards, that there had been no laceration.

It is of the greatest practical value, as showing that this operation may, and indeed should, be performed in such cases as the one here described, even upon women who are at the time bearing children.

I shall not illustrate this portion of the subject by other cases—as I could readily do from my Hospital case-book; suffice it to say, that only in one case, which occurred a few

months since, have I had any serious symptoms followed by death, occur; and in that case, the patient having frequently had rheumatic fever, was suddenly seized a few days after the operation by a severe attack of rheumatic fever, affecting the joints, attacking the heart, and producing unexpectedly sudden death.

As this paper has already extended to a length sufficient to occupy the attention of the members of this Society, I shall merely observe, that I have had many cases of vaginal rectocele treated in a similar way, without the anterior points of denudation, all having invariably resulted in a perfect cure of the affection. Many members of this Society have seen them in the Hospital, and can bear testimony to the accuracy of these Reports.

16, Connaught-square, Hyde-park.

MELANOTIC CANCER OF THE EYE-BALL.—OPERATION.

By J. ZACHARIAH LAURENCE, F.R.C.S.

Elizabeth K. first came under my care at the Northern Dispensary on August 13, 1855.

It is now eight years ago that, on getting up one morning, she observed her sight was dim, and found, by closing the left eye, that the sight of the right eye was completely gone. She experienced no pain; the eye was not red, nor did she perceive anything in the "black" (pupil). About four years subsequently, she was attacked with excruciating pain in the eye, when something "gave way" in the organ; blood and matter exuded. She felt at once relieved. She never experienced any feeling in the eye-ball that led her to suspect the formation of any tumour. This made its appearance about three years since, five years, consequently, from her first amaurotic seizure, and has been gradually increasing. The right eye-lid is reddened, protrudes, and is rather œdematous. On raising it up, a tumour of the eyeball is disclosed, presenting the following characters:—It appears about the size of an almond (its long diameter across is 1 in.), somewhat lobulated, of a deep slate, towards its outer part nearly black, colour, is covered by a thin membrane, beneath which some distended veins run. No traces of the cornea, iris, or pupil are left. The small part of the conjunctiva, apart from the growth, is injected and œdematous. What appears to me an important practical point is, that *the tumour moves freely with the eyeball*, showing it to have no direct connexion with the orbital cavity, and therefore more susceptible of complete removal by an operation.

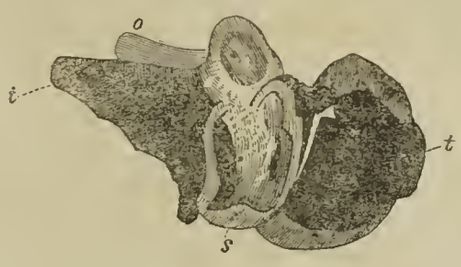
She has at times suffered a good deal of pain in the eyebrow, which has been relieved by leeches; and is now and then troubled with frontal headache. The growth has never bled. None of her family ever had tumours or cancer, or were consumptive. She herself has, independently of rheumatic pains, always enjoyed excellent health, but has got thin within these last years from having borne children so fast. She has had six births and two miscarriages. Her catamenia are regular, and occur also during suckling. She is a spare woman of average stature, with light brown eyes and hair, some colour in her face, and very intelligent. After watching the progress of the tumour for some time, I at length, with Mr. Quain's approval, determined to remove it.

Operation, January 7, 1856.—The patient having been anæsthetized with chloroform by my friend Dr. Hillier, I, with the assistance of Messrs. Quain and Bishop, proceeded to remove the contents of the orbit. A ligature was passed through the anterior part of the tumour, which was then removed in two parts, in the ordinary method, by a scalpel. In the operation it was found that the portion of the tumour apparent to the eye before operating was not more than one-third of the whole growth, which extended deeply to the very bottom of the socket. The lachrymal gland was likewise removed. The hæmorrhage was very considerable, especially from a rather large artery at the outer angle of the wound; but was effectually arrested by firm plugging and a compress.

The case went on remarkably well; the patient was up within a week of the operation, and at the present moment the orbit is more than two-thirds filled up with healthy granulations.

Anatomy of the tumour.—It measured about 2 inches from before backwards, and about 1 inch in thickness; it weighed about 5½ drachms. It was enclosed in a thin capsule (the attenuated conjunctiva), and was lobed in its surface. A section was of a colour varying from bistre to black, with some spots, however, of a pearly-white translucent hue. Microscopic examination of one of these latter showed it to be studded over (composed of?) cancer nuclei, some of which were enclosed in a cell wall; granular and fusiform cells were also observed.

Longitudinal Section of anterior half of the Tumour.



o. Optic nerve. *s.* Shrunken sclerotic. *t.* The tumour.

As regards the relation of the tumour to the structures of the eye, this is best seen in the drawing.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

ST. MARY'S HOSPITAL.

FRACTURE OF THE NECK OF THE FEMUR.—REMARKS AND CASE.

(Case under the care of Mr. COULSON.)

The subject of fracture of the neck of the femur is one which has at all times attracted much attention, owing to the peculiarities by which these fractures are distinguished from others. The difficulty and uncertainty of producing union of the fractured bones which is well known to attend a peculiar form of fracture of the neck,—that occurring within the capsule, has alone made the diagnosis between fracture within and without the capsule a matter of importance. If, in a certain case, the surgeon is able to make up his mind that he has to do with a fracture external to the capsule of the joint, the prognosis to be given is more favourable and more certain than in another case where the neck of the femur is supposed to be fractured higher up. Much difference of opinion has existed, both as to the comparative frequency with which fracture of the neck takes place within and without the capsule, and, as to the symptoms and signs by which the one condition is to be distinguished from the other. The views entertained by Sir A. Cooper, who was considered the chief authority on the subject in England, have not been confirmed by some subsequent writers.

It is well known, that as life advances the osseous tissue composing the neck of the femur undergoes important alterations. The bony tissue is removed by absorption, and the osseous interspaces become greater in extent until little cavities are formed, opening after a time one into the other, and thus diminishing the strength of the bone. The vacant spaces thus left are filled by medullary matter, such as is found in the shafts of long bones. This change has been called, though not perhaps very appropriately, fatty degeneration of the neck. This change in the composition of the bone takes place towards the fiftieth year, but is more marked after that period. This, therefore, is one condition favouring the occurrence of fracture of the neck of the femur after a certain age. A second is the alteration which takes place in old persons in the direction of the neck of the bone, making its axis more horizontal, and thus rendering the transmission of the weight of the body from the pelvis to the leg less direct. The experiments and observations of M. Rodet, which are of peculiar interest, show, however, that this alteration is much less in extent than has been hitherto supposed, and we must, consequently, infer that its effect, as predisposing to the occurrence of fracture of the neck, is less than has been believed. M. Rodet found, after having measured twenty-four subjects of all ages, that there is an average difference of from two degrees to two degrees and a-half in the angle which the neck of the femur makes with the shaft. In females the angle is rather less, and, consequently, nearer a right angle than in males;

but the difference here only amounts, according to M. Rodet, to two degrees. Individual differences in the measurement of the angle have been found by him to amount to as much as twenty-three degrees, the extreme measurements being 144° and 121°. The result of this is to show that the difference of age is less to be considered as a predisposition than the individual peculiarity.

It was stated by Dupuytren, that in women the neck of the femur is longer than in men. If this were the case it is very obvious that it would constitute in them a predisposition to the occurrence of fracture of the neck. M. Rodet's observation are, however, directly opposed to the opinion of Dupuytren, his results showing that the neck is actually shorter in females than in males, the difference being, however, very slight. The general result of what has been stated is to show that fracture of the neck of the femur may be expected to occur more frequently after the age of fifty, and with greater frequency in females than in males. Such is found to be the case in practice.

The next question is, as to the seat of the fracture, with which is connected its causes. Sir A. Cooper, as is well known, attributed the fracture in most cases to the sudden jerks transmitted to the neck, consequent on the foot suddenly slipping off the pavement. MM. Bérard and Cloquet hold a very different opinion, regarding the slip as simply the cause of the fall, and believe the fracture to be produced by the fall on the great trochanter. The point is, certainly, one rather difficult to decide; but it is most probable that the fracture more often follows the application of direct than of indirect force. According to some, the nature of the accident determines the seat of the fracture; thus, it is said that, if the violence be applied directly, the fracture will be outside the capsule; but, if it be transmitted, the fracture will be intra-capsular. Sir A. Cooper was of opinion, that the intra-capsular fracture was peculiar to old people. This is certainly not universally true, for undoubted cases are on record of fracture within the capsule occurring in young persons. Still, it cannot be denied that, in a large majority of cases, the rule holds good. The signs distinctive of the two conditions warrant some little consideration; for, as before stated, one form of fracture generally does better than the other. The signs common to both extra and intra-capsular fracture are,—loss of power in the limb, abolition of its functions, shortening of the limb, eversion of the foot, and crepitation. These symptoms will all be more or less present in most cases, and the diagnosis depends, for the most part, on the degree in which some of these symptoms are marked. The shortening of the limb is greatest when the fracture is external to the capsule, the length of the limb never being very much diminished in the other case, unless the fibrous connexions of the hip-joint are much destroyed. This statement is opposed to that of Sir A. Cooper; but it is highly probable, as M. Nelaton remarks (a), that many of the cases on which this opinion was founded were cases of extra-capsular fracture. The degree of eversion of the foot seems to depend on the amount of shortening the limb has undergone; thus, it will be found less in intra-capsular fracture than in the other variety. The crepitation is often indistinct in both varieties; and, if there is impaction, as is now and then observed, it may be wholly wanting. Another sign on which some stress has been laid, in a diagnostic point of view, is the size of the arc of the circle which the great trochanter makes when rotation of the limb is performed. If the fracture is internal to the capsule, the arc will be larger; but if external, and close to the trochanter, it will be very small, and the trochanter will merely rotate on its axis. This, at first sight, appears a good criterion; but it is doubtful whether very much can be gained from it in practice. The whole subject admits of much amplification, which cannot, however, here be given to it. Some of the points which have been above alluded to are illustrated in the following case:—

Thomas P., aged 65, a labourer by occupation, was admitted into St. Mary's Hospital, July 10, 1855, under Mr. Coulson. He had fallen in a scuffle on the pavement, and injured the right thigh. The great trochanter of the right side came in contact with the stones. On admission into the Hospital it was found that the patient was unable to walk; the right foot was slightly everted; there was little or no shortening of the limb. the patient complained of pain about the hip-joint, and the soft parts covering the joint were contused. Crepitation was detected in the neighbourhood of the neck of the femur. This was, therefore, a case in which direct force had been applied over the great trochanter; the effect had been to produce fracture of the neck: it was probable that the fracture was situated nearer the articular than the trochanteric end of the neck, and, perhaps, within the capsule. The limb was put into a proper position, and retained in it by a simple adaptation of pillows. A few days after the patient's entry into the Hospital he was seized with an acute attack of bronchitis connected with an emphysematous condition of the lungs. But little restraint could be consequently placed on the fractured limb, but it was kept in position and at rest very well by the aid of bags filled with flocks, these being tied round the limb from the hip downwards.

The bronchitic attack subsided after a short time. One month after the accident the limb was put in starch bandage.

August 25.—The patient is up to-day for the first time, and is able to get about with a crutch. The limb feels comfortable and in every respect resembles the other, there being no shortening or distortion.

September 14.—Discharged cured. The union is apparently firm, and, as the man's health is very considerably improved, there is every reason to expect that the case will continue to do well.

(a) Elémens de Pathologie Chirurgicale, par M. A. Nelaton. Tome I., p. 786.

STATISTICS OF OPERATIONS NOTICE.

In order to economize space, the "Statistical Report of the Principal Operations performed in the London Hospitals" will, in future, appear every two months, instead of monthly, as hitherto. That for March and April is in preparation, and those of our contributors who have not sent in their lists, will oblige by doing so as early as may be.

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING THE HALF-YEAR ENDING DECEMBER, 1855.

(Continued from page 442.)

The subjoined Report comprises the following Hospitals:—Addenbrooke's (Cambridge), the Bradford Infirmary, the Cheltenham General, the Cumberland (Carlisle), the Derby General, the Dorset County (Dorchester), the Dundee Royal Infirmary, the Durham County, the Gloucester, the Hitchin General, the Hull, the Kent and Canterbury (Canterbury), the Leeds, the Leicester General, the Liverpool Royal, the Liverpool Southern and Toxteth, the Margate Sea-bathing Infirmary, the Nottingham General, the Sheffield General, the South Staffordshire (Wolverhampton), the Staffordshire General (Stafford), the Sussex County (Brighton), the West Norfolk and Lynn (Lynn), and the York County Hospital.

EXCISION OF MALIGNANT TUMOURS.—(*Additional.*)

Case 7.—A man, aged 50, under Mr. Hughes' care in the Staffordshire General Hospital, on account of epithelial cancer of the lip. The disease had been three times excised before. Excision. Recovery. *Case* 8.—A woman, aged 48, under Mr. Meade's care in the Bradford Infirmary, on account of epithelial cancer of the eyelid. Excision. Recovery. *Case* 9.—A man, aged 67, under Mr. Meade's care in the Bradford Infirmary, on account of epithelial cancer of the upper lip. Excision. Recovery. *Case* 10. A man, aged 62, under the care of Mr. Hey in the Leeds Infirmary, on account of epithelial cancer of the lip and cheek, which had already twice returned after removal. The diseased part was freely excised, and the wound readily healed; but within a short time the disease had again appeared in the cicatrix. *Case* 11.—A woman, aged 45, under the care of Mr. Winter in the Brighton Hospital. A growth of fungus hæmatodes was excised from the right forearm. Recovered. *Case* 12.—A man, aged 64, under the care of Mr. Curme in the Dorset

Hospital, on account of cancer of the lip of three years' duration. Excision. Recovery.

AMPUTATION OF THE PENIS.

Case 1.—A man, aged 36, by trade a maltster, under the care of Mr. Shaw in the Durham County Hospital, on account of epithelial cancer of the penis. Amputation. Recovery. *Case* 2.—A man, aged 48, under the care of Mr. Hey in the Leeds Infirmary, on account of cancer of the penis. The part affected was removed, in order to get rid of an offensive mass. The disease re-appeared on the cut surface. Under treatment.

EXCISION OF THE BREAST, OR OF TUMOURS CONNECTED WITH IT.

Case 1.—A woman, aged 45, under Mr. Stubbs' care in the Liverpool Royal Infirmary. The whole gland was removed on account of scirrhus. Recovered. *Case* 2.—A woman, in good health, aged 51, under Mr. Long's care in the Liverpool Royal Infirmary. The breast, and two or three axillary glands, were excised on account of scirrhus. Recovered. *Case* 3.—A woman, aged 45, under care in the Kent and Canterbury Hospital, on account of scirrhus of the breast. Excision. Recovery. *Case* 4.—A woman, aged 22, under Mr. Cotton's care in the West Norfolk Hospital, on account of a tumour in the breast, of two years' duration. It was about as large as a goose's egg. The tumour only was removed, and proved to be of the chronic mammary class. Recovered. *Case* 5.—A widow, aged 39, under Mr. Teale's care in the Leeds Infirmary. A tumour (not malignant) the size of an orange, was excised from the breast, where it had existed for two years. Recovered. *Case* 6.—A single woman, aged 24, under Dr. Masfen's care in the Staffordshire General Hospital, on account of a mammary glandular tumour. Excision. Recovery.

REMOVAL OF LOOSE CARTILAGE FROM THE KNEE-JOINT.

Case 1.—A healthy agricultural labourer, aged 24, was admitted into the Dorset County Hospital with the statement, that a month previously he had slipped while lifting a heavy sack, and had struck his knee, ever since which he had been lame. He had felt something move in his joint, and which threw him down whenever he attempted to walk. On examining the part, a loose cartilage was easily discovered in the outer side of the joint. Three weeks after admission, the operation for its removal was performed. A subcutaneous incision having been made into the joint, it was attempted to squeeze out the cartilage; but this not succeeding, some straps of plaster were applied, so as to retain the latter in its position immediately beneath the wound in the synovial membrane. The knee remained quiet for about thirty-six hours, when violent inflammation was set up, which resulted in suppuration. Under the profuse discharge which followed, the man sank very low, bedsores formed and increased his debility; and, about seven weeks after the operation, amputation was decided on. To this the man refused his consent. Since then the condition of the knee has much improved, and at the time of the report there was good hope that both life and limb would be saved. (a)

Case 2.—A brewer's man, aged 37, under the care of Mr. Teale, in the Leeds Infirmary. Six months before admission he had received an injury to the knee, from which, at the time, he did not suffer much, but since which there had been the symptoms of loose cartilage in the joint. A firm knee-cap, and other means, had been employed, without any benefit. Mr. Teale attempted to operate by the subcutaneous incision, but, the attempt not succeeding, the loose body was cut directly down upon, and taken away. Inflammation of the joint followed, of so severe a character that the man sank under it on the seventh day. The body removed was large, flat, and oval. At the autopsy the inner condyle of the femur appeared to have lost a portion of cartilage, which corresponded in size with that removed. Mr. Teale thought it probable that this must have been the mode of origin of the loose cartilage, it having been detached by slow ulceration consequent on the accident.

TRACHEOTOMY.

Case 1.—A man, aged 33, under care in the Liverpool Royal Infirmary, on account of chronic laryngitis. The thoracic organs were healthy. Suffocative obstruction supervened rapidly after the use of a strong solution of caustic, and tracheotomy was necessitated. The operation was performed by Mr. Halford. The man recovered well, but still wore the tube when he left the Hospital.

Case 2.—A labourer, aged 20, under the care of Mr. Long, in the Liverpool Royal Infirmary, having had his neck crushed between the buffers of two railway carriages. The trachea had been ruptured, and emphysema of the neck, and numbness of the arms, etc., followed. In the course of a few days dyspnœa had become so urgent as to threaten life. An incision having been made over the trachea, it was found ruptured, and its rings at one part separated to the distance of an inch. A tube was inserted, and, owing to respiration having entirely failed, it was requisite to suck up by the mouth a quantity of mucus and blood, and to re-inflate the lungs. This done, the man began to breathe again, and subsequently rallied perfectly. He left the Infirmary with the wound well healed.

Case 3.—A boy, aged 4, was admitted into Addenbrooke's Hospital, in order to the performance of tracheotomy. He had suffered from laryngitis for four days, and the dyspnœa gradually increasing, had become urgent and alarming. Chloroform was administered, but produced no mitigation of the symptoms. After the canula had been introduced, it was necessary for a short time to practice artificial respiration. As soon as the breathing was well re-established, all dyspnœa passed off, and the boy afterwards recovered without a drawback. The tube was removed on the tenth day, and the wound was soundly healed soon after.

Case 4.—A girl, aged 17, under care in the Kent and Canterbury Hospital, on account of anæmia, etc. Two months after admission she began to suffer from sore throat; the right tonsil became immensely enlarged, and all but occluded the pharynx. No soft part could be felt in it; and, although several deep punctures were made, no matter was obtained. On the third day laryngotomy was performed, the dyspnœa having become so urgent as to threaten suffocation. No tube was introduced, the space being found too small. Marked relief followed the operation. The wound healed in about a week, the swelling having meanwhile much decreased. The abscess did not give way until three weeks after the first symptoms, when about half-a-pint of greenish, well-formed pus was brought up. Recovered.

Case 5.—A man, aged 66, under care in the Kent and Canterbury Hospital, on account of albuminuria, was suddenly attacked by laryngitis. The symptoms having become urgent, laryngotomy was resorted to; but it was too late, and death took place before the operation could be completed.

Case 6.—A child, aged 2, under care in the Staffordshire General Infirmary, having swallowed boiling water. Suffocation appearing imminent, tracheotomy was performed by Mr. Moreton, the House-Surgeon. Great relief to the breathing followed, and for two days the child did well. Death occurred on the fourth day. The autopsy showed acute softening in the right lung, and some surrounding inflammation about its root.

Case 7.—A woman 38, under care in the Staffordshire General Hospital, on account of ulceration of the larynx, with warty growths. The disease had existed for nine months, and was suspected to be syphilitic. Several paroxysms of most threatening dyspnœa had occurred, and in one of these, Mr. Moreton (House Surgeon) proceeded to perform tracheotomy. The breathing having ceased altogether, the more speedy operation of laryngotomy was preferred, and the trochar and canula at once thrust through the crico-thyroid space. Artificial respiration was immediately resorted to, and galvanism used, but with no avail. At the autopsy a cluster of warts, with surrounding ulceration, was found immediately above the bifurcation of the trachea, and almost occluding that tube.

OPERATIONS FOR URETHRAL STRICTURE.

A man, aged 30, under the care of Mr. Humphrey in Addenbrooke's Hospital, having suffered severely from stricture for ten years. He had been under treatment repeatedly. With much trouble, a No. 1 catheter was passed through a very tight stricture in the bulbous tract of the urethra. The catheter was retained two days, and subsequently a Syme's staff was passed, and perineal section, after the usual method, performed. For several days afterwards there was a good

(a) Since this was in type we have received a further report. The man is now well, with a stiff knee.

deal of venous bleeding, from the wound and from the urethra; but it was at length arrested by the use of gallic acid and opium. The catheter was removed on the second day, and afterwards introduced occasionally. The wound healed in about a month, and he left the Hospital quite well, and able to make a full stream of water. *Case* 2.—A man, aged 30, under the care of Mr. Gisborne, in the Derby Infirmary, on account of stricture and retention of urine. No instrument could be passed, and the symptoms of uræmic poisoning were becoming manifest. An incision into the perinæum was made on the end of a catheter, and two strictures having been divided, the instrument was passed into the bladder. A gum elastic catheter was afterwards retained for six weeks, at the end of which time the wound had healed, and the man was quite well.

INCISIONS FOR RUPTURE OF THE URETHRA.

A man, aged 33, was admitted, under Mr. Teale's care, into the Leeds Infirmary, having severely bruised his perinæum by falling across a beam. The end of the catheter passed into a large ragged cavity in the perinæum, and could not be made to enter the bladder. Mr. Teale cut down upon the end of the instrument, and then guided it into the bladder. There was considerable hæmorrhage at the time, and extensive sloughing of the scrotum followed; but the man subsequently made a good recovery, and the parts healed.

INCISION OF IMPERFORATE HYMEN.

A girl, aged 15, was admitted, under the care of Dr. Eves, into the Cheltenham General Hospital, on account of retained menses from imperforate hymen. The condition had been discovered only a few weeks before, when the use of the catheter had been necessitated by retention of urine. The vagina was greatly distended. The membrane having been punctured by a scalpel, about two pints of thick bloody fluid escaped. No ill symptoms followed, and she shortly afterwards left the Hospital well.

PLASTIC OPERATIONS.

In five cases, with greater or less benefit, operations have been performed for the mitigation of deformities caused by the cicatrices of burns. In five cases single harelips have been operated on in the usual manner, in four with success, and in one with complete failure. In two cases of very severe double harelip, operations have been successfully performed. In one of deformity of the mouth, and in another of opening into the cheek, both resulting from injuries, plastic operations were successfully resorted to.

OPERATIONS FOR THE CURE OF NÆVUS.

Operations of this class are reported in eight cases, in some the nævus being of considerable size. In all either complete or partial success was obtained, and in none did any serious consequences ensue.

Erratum.—In the 45th Case of Amputation given last week, it was stated that the patient was the subject of phthisis. It should have been that there was no evidence of tuberble in the lungs.

NEW INVENTIONS.

PULVERMACHER'S PATENT HYDRO-ELECTRIC CHAINS AND ACCESSORIES.

Although the applications of the electric current, in the treatment of disease, have been made the means of promoting the gains of the empiric, there can be no doubt that, under judicious and scientific management, this very potent agent may be beneficially brought to bear upon the human body in some of its morbid conditions. The hydro-electric chains of Mr. Pulvermacher are so constructed as to perform the office of a galvanic battery, the power of which may be increased or diminished at will. Each link of the chain is in itself a battery, composed of alternate brass and zinc wires; and the apparatus is put into action by moistening it with vinegar. We have seen the chains in action, and have felt their effect upon the body; and we have no doubt that, in all cases where a continuous stream of electricity is required, these chains will produce the desired effect. The deflexion of the galvanometer, and the production of the spark, may be readily exhibited by this instrument.

MR. JEFFREYS' PNEUM-ENEMA.

Mr. Jeffreys has lately invented a very ingenious instrument, which obviates many of the inconveniences attending the ordinary enema-apparatus at present in use. As its name implies, the air is made the moving power. The instrument consists of a glass vessel, graduated like a measure, having a pipe descending nearly to the bottom in its interior; to this pipe a flexible tube is attached above. When brought into use, the glass vessel is filled with the fluid to be injected, and on a large aperture at the top, a kind of pump, of the bellows kind, is fixed, by which the atmospheric air is made to act upon the surface of the fluid, and to force it up the pipe. By this contrivance the air gradually displaces the fluid, ejecting the latter in a continuous stream till the vessel is emptied. The pump may be worked by one hand, or by the elbow of a nurse. The advantages of this instrument are that the fluid, which may be accurately measured, is poured out in a uniform current, and that it is not liable to get out of order, as is the case with the valvular instruments: it is also convenient in use, as a nurse may work the pump with her elbow while she is holding a child-patient in her arms. We understand that, although Mr. Jeffreys is the inventor of the Pneum-enema, he does not intend to carry on the manufacture of it himself, but has some philanthropic objects in view in his future arrangements. The price will vary according to the style in which the article is prepared; and we believe that it will be sold eventually at from 12s. to 30s., although the prices may at first be somewhat higher, in consequence of the quantity of necessary alteration, and the cost of work spoiled in the progress of the manufacture.

Medical Times & Gazette.

SATURDAY, MAY 10.

THE COLLEGE OF PHYSICIANS AND MEDICAL REFORM.

Last week we received, although too late for notice, the Memorial presented by the Royal College of Physicians of England to the Right Hon. W. F. Cowper, as Chairman of the Select Committee upon the Medical Bills now before Parliament. This document, which we publish to day, will be read with great interest, and will, no doubt, exercise considerable influence upon the decisions of the Committee.

It will be seen that the College disapproves the Bill of Lord Elcho, and that its disapprobation is partly based upon the same reasons as those which we adduced last week in our leading article. The College exposes the absurdity of putting all Medical Practitioners upon the same footing, without any reference to the amount of time, study, and expense incurred in the prosecution of their Professional career. This Bill, in fact, places all Practitioners upon a perfect equality; and whether a man has passed merely the examination of the Apothecaries' Society in London, or that of the Apothecaries' Company of Dublin, or that of the College of Surgeons of England, or that of the Faculty of Physicians and Surgeons of Glasgow; or whether, on the other hand, he has passed through a long and expensive course of general and Medical education: in either case he would be entered upon the same Register, and would be presented to the public as equally entitled to the highest honours and emoluments which the Profession can bestow.

But the College regards with favour the Bill of Mr. Headlam, and has presented a petition in its support. One of the main features of the Bill, however, namely, the constitution of the Medical Council, does not meet with the approbation of the College; for, instead of the heterogeneous assembly of Councillors from the Universities, Colleges, and

from the Profession generally, the College of Physicians "is decidedly of opinion that the Medical Council should not be very numerous, *and that the Members of it should be appointed by the Crown.*"

One reason, however, adduced by the College in explanation of its support of Mr. Headlam's Bill, we cannot wholly comprehend. "This Bill," says the College, "preserves the distinction of three orders in the Profession:—Physicians, Surgeons, and General Practitioners." Now, fully admitting, as we have always done, the necessity of preserving this distinction, it is precisely the feature in which Mr. Headlam's Bill is deficient, for it divides the whole Profession only into Physicians and Surgeons, without any mention of a third order at all; and the chief boast of the thick-and-thin supporters of this measure is, that it abolishes entirely any third grade in the Profession.

The College objects to the method proposed for Registration in the Bill of Lord Elcho; but it strikes us that the objections are equally weighty against the same provisions in Mr. Headlam's Bill. It would appear, moreover, that the College objects to any fee whatever being paid for Registration, at least by those who are already in practice; as also to the payment of any annual Registration Fee, as is proposed in both the Bills before Parliament. To us, however, it appears manifest that some fund is necessary for carrying on the business of efficient Registration; and we also think that a small annual fee paid by each member of the Profession would most materially tend to the preservation of correct lists of those who are actually in practice, and would obviate the occurrence of the numerous inaccuracies of our present lists, arising from deaths, change of residence, and retirement from practice.

On the whole we approve the tone and spirit of the College Memorial. The principles professed by the College differ in few respects from those which we have ourselves expressed. They recognize the necessity of a Council chosen by the State; of preliminary knowledge of literature and science as necessary antecedents to admission into the Profession; and of preserving the distinctions of the three grades into which our body has been divided. The scheme which we proposed last week would harmonize completely with the views of the College, and we are glad that our sentiments are in accordance with those of the highest Medical authority in these kingdoms.

BETHLEHEM HOSPITAL.

Towards the close of the year 1852 we drew attention to the lamentable state into which Bethlehem Hospital had fallen, from the supineness and inattention of those to whom its management had been entrusted. The publication of the Minutes of Evidence taken during a protracted investigation proved, that while the condition of the lunatic was undergoing improvement in every region of the civilized globe, this noble Institution had fallen in the rear of enlightenment, and retained, if it did not exaggerate, all the miseries of the old asylums. Closely barred windows, and ill-lighted and ill-ventilated apartments, spread an aspect of gloom over the exterior and the interior of the building; while cruelty and inattention seemed to be the rule, not the exception, in the treatment of the unhappy inmates. The Committee of the Hospital, it will be recollected, strenuously denied the truth of the accusations, or, at any rate, declared the statements to be highly coloured,—a convenient expression when a flat denial is impossible. It will also be recollected, that, in consequence of the disclosures made at the time, and the public indignation which was excited, the whole of the Medical Staff underwent a complete revolution; although it must be admitted, that this branch of the executive of the Hospital was by no means responsible for many of the evils which were fairly chargeable upon the establishment.

Some of the Medical Staff having resigned, and others having been pensioned, the Committee of the Hospital reconstituted the Medical Department by the appointment of Dr. Hood as Chief Resident Medical Superintendent of the establishment, with supreme control over all the other officers, and of an Apothecary, also resident, to prepare the medicines and attend upon the patients in the absence of the Physician. This scanty Medical staff for so large an establishment, in which most of the cases are acute, excited no little remark at the time; and, it is a matter of regret, that in so rich an institution as Bethlehem Hospital, the number of Medical attendants has not been augmented. It must also be confessed, that considerable surprise was evinced at the appointment of Dr. Hood, then comparatively a young man, to the responsible post of Chief Physician and Superintendent; and some dissatisfaction was, not unnaturally, felt and expressed by parties who thought that other claims and other services had been somewhat unfairly overlooked.

Since that time, however, the feelings of disappointment have melted down, and the choice of the Committee has been fully justified. We are bound to admit that under Dr. Hood's management this noble Hospital has become an ornament to the British Metropolis, and in some, though not yet in all respects, a model for similar Institutions throughout the world. The gloomy iron bars which formerly disfigured the windows of the edifice are now being rapidly removed, and are replaced by light though strong iron framework, united to the glass of the windows themselves; the dismal caves, where the wretched lunatics were deprived of warmth, of light, and of air, have been converted into cheerful galleries, well warmed, well lighted, and well ventilated; and, instead of the sad and prison-like aspect which the rooms formerly presented, they are now the abodes of joy and cheerfulness; the walls are hung with pictures and adorned with flowers, and singing birds add to the animation of the scene. The women are provided with pianos, and are encouraged in the art of music and the diversion of dancing within doors; and, while all are allowed out-of-door exercise within the grounds of the Hospital, many are allowed to make visits to the country under proper guidance. The men are also provided with appropriate amusements, and a large and well-lighted billiard-room is now nearly finished. Baths of various kinds form an important feature in the treatment of the patients; and the food is good and abundant. Ordinary sickness is very rare, and for years no case of contagious fever has occurred.

The exception to the general improvement in the Hospital is to be found in the Criminal Department, which is as dull, as gloomy, and as comfortless as ever. No classification here is made or attempted: and those who have been acquitted of crimes on the ground of insanity, and who, therefore, are not criminals at all; those who have been unable to plead at their trial in consequence of being insane; and ordinary culprits who have become insane during the term of their penal servitude, are all heterogeneously huddled together into the same dismal and comfortless receptacles. For the continuance of this blot upon the general arrangements, the Committee and the Medical Officers are not responsible; for it appears that the Government has strictly forbidden any alteration to be made in this particular. We believe, however, that it is in contemplation to erect a Central Criminal Lunatic Asylum; and the sooner this is accomplished, the more creditable will it be to the Government, and the better will it be for the investigation of the very knotty points which are involved in the complicated and rather indefinite idea of Criminal Lunacy

THE WEEK.

We have been much surprised at a judgment lately delivered in the Court of Vice-Chancellor Stuart in a case relating to the late Mrs. Cumming, concerning whose state of mind, it will be recollected, there was a long litigation, which terminated not till the death of that lady, and, we believe, the absorption, for law expenses, of nearly all the property. A number of Medical gentlemen who were engaged professionally to examine the state of Mrs. Cumming's mind, now come forward to ask the Court of Chancery for the payment of the fees for their services, which, it appears, have not been paid. To our infinite astonishment, and that of the whole Profession, the Vice-Chancellor has decided against the payment of the claim, although admitting its justice, and the high and honourable character of the claimants. We are informed that Dr. Forbes Winslow took charge of the deceased lady for a period of two years, under the direct sanction of the Court of Chancery, and now his Professional remuneration is altogether refused to him. We are so totally unable to comprehend the equity of this decision, that we have some difficulty in believing that it is correctly reported; or it is possible that some important points in the facts of the case may have been omitted. Perhaps the wrong persons have been proceeded against, or there may be no funds left for paying anybody; but, supposing there is any residue of property, and that the application has been legally made, then we think the Medical men engaged in this protracted case have been shamefully ill-treated.

We have received several communications upon the subject of the want of provision on the part of the Government for the Medical attendance of Military Pensioners throughout the country. As these poor fellows, maimed and wounded, will soon fill our garrison towns, it is time that some steps should be taken in the matter. We understand that these men have no claim to Medical aid from the barracks, except for one or two weeks in each year; and they cannot claim gratuitous attendance from public Institutions, as they are not paupers. It has been suggested that the Civil Practitioners who have been in connexion with the troops in garrison towns for the last two years should be employed to attend these pensioners, and we hope that the suggestion may meet with attention from the Government.

Mr. Griffin's efforts on the part of the Poor-law Surgeons continue to meet with success from many quarters. We believe that at the present time upwards of two hundred Unions have joined the movement, and some money has been subscribed to promote the cause. We have heard with regret that a memorial to the Poor-law Board, independently of Mr. Griffin, is going about for signature,—a circumstance which may betray something like disunion, and may give a handle of reproach for the use of the common enemy. We hope that all parties will see the necessity of combined and harmonious action, and merge individual opinions in the promotion of measures for the public good. We believe that the meeting of the Poor-law Medical Officers will take place at the end of the present month; and as the celebration of the Queen's birthday on the 29th, and the rejoicings consequent on that circumstance and on the conclusion of peace, may draw a large number of Provincial Practitioners to the Metropolis, it is probable that the convention of Poor-law Medical Officers may be fixed on the day before or the day after the 29th, so as to secure as great an attendance as possible. We cannot but applaud the caution and judgment, as well as the energy displayed by Mr. Griffin, and we have little doubt that his exertions will be crowned with success.

The Committee upon the Adulteration of Food held its last meeting for the reception of evidence on Friday in last week, when Dr. Hassall was examined at great length, and explained the various admixtures which enter into the composition of Food and Drugs. Dr. Hassall defined an adulteration as "the intentional addition of an article to any substance the presence of which was not acknowledged in the name under which that substance was sold." He also thought that it would be desirable to make a sub-classification, specifying those adulterations which were prejudicial to health, and those which were simply commercial frauds. In order to prevent frauds on the part of tradesmen, he suggested that it should be rendered imperative on persons convicted of giving false weight, or selling adulterated goods, that they should keep a placard exhibited in the most prominent part of their windows, for three, six, or nine months, containing the text of the judgment condemning them. We understand that a Testimonial will be presented to Dr. Hassall, on Thursday next, at a public dinner to be given to that gentleman at the Freemason's Tavern; Viscount Ebrington, M.P., in the chair.

We are doomed never to hear the end of the St. Pancras Workhouse and its abominations. It appears that the Poor-Law Board, so lately as on the 1st inst., had addressed a letter to the refractory Vestry of St. Pancras, regretting that no material improvement had yet been made in the condition of the Workhouse, and intimating its intention to issue an Order respecting the accommodation to be provided for the paupers, unless the evils are remedied in the course of two months. This communication elicited some of the usual clap-trap speeches about the dictation of the Poor-Law Board, and a Resolution was adopted merely sullenly acknowledging the receipt of the communication. The Poor-Law Board is quite competent to take the matter immediately in hand, as their Act gives them entire control over the management of all Workhouses now established, or which hereafter may be established. The Board has endeavoured to draw a distinction between certain Workhouses which are under their control, and others which are not; but this distinction is entirely without foundation.

THE LATE GEORGE JAMES GUTHRIE.

As we informed our readers last week, we have lost Guthrie, the most able, vigorous, original, and experienced Surgeon of his time. Let us devote a few lines to his history and achievements.

He was descended from an ancient and respectable Scotch family, the Guthries of that ilk, one member of which, Sir Alexander, married an Irish lady, settled in Ireland, and lost his life at the battle of the Boyne. His son inherited a small property near Wexford, but as he happened to take the wrong side in Irish politics, his house was set on fire, and he, with two of his sons, was drowned by the upsetting of a boat in which they were trying to escape from being murdered. His eldest son had a commission in the army, and was provided for;—the youngest, three years old at the time of this catastrophe, was left almost destitute, and had to fight pretty hardly with the world for his subsistence. Yet he did contrive, not only to live, but to make a good deal of money as a manufacturer of litharge and other substances employed in plasters and bougies. But he married unhappily, and his son, the Surgeon whose decease we are now commemorating, began life in a home too often the seat of intemperance and dissension. The son was, therefore, early compelled to seek his own fortune; and when he returned home after years of service, had the mortification of finding his father in the hands of a gang of German quacks, who cheated him, destroyed his reputation, incited him to intemperance, and at last ruined him. But the old man's life was now nearly at an end, and his son had the satisfaction of soothing his last hours, which were passed in tranquillity and penitence.

George James Guthrie was born on the 1st May, 1784, and departed this life on his 73rd birthday, in 1856. Where

he was born we know not, nor where he was educated; though we are told that the late Sir Samuel Romilly was one of his schoolfellows. At a very early age he began the study of the Medical profession under Mr. Phillips, the Surgeon, of Pall Mall, and then under Dr. Hooper, a man to whom more than one eminent member of the Profession is under obligations for successful training. In 1800, he did duty as Hospital Assistant to the York Military Hospital, situated in what was then known as the Five Fields, but now at Eaton-square; and being objected to on the score of want of qualification, boldly came up to the College of Surgeons, and passed his examination on the 5th February, 1801. He was, in March, appointed Assistant-Surgeon to the 29th Regiment, and joined it at Winchester, under Colonel Byng, since Lord Strafford. Thence he accompanied his regiment to Canada, where we have heard him say that he held the office of Apothecary to the Forces, at three half-crowns a-day. From Canada he returned as full Surgeon, in 1807, to Cork, whence he sailed for Spain, the future seat of his surgical achievements; and, after some adventures, landed in Mondego Bay in the first days of August, 1808, with the army under Sir Arthur Wellesley.

At this time Portugal had been seized by Napoleon, and was held by Junot, of plundering notoriety, whose head-quarters were at Lisbon. The British troops, as soon as their landing was completed, moved towards the capital; and, after a trifling skirmish at Obidos on the 15th, were encountered by the French, strongly posted at Roliça, on the 17th. Here ensued the first battle—a well-fought, arduous struggle, victorious at last—like the great Peninsular war, of which it was the commencement and the type. Of this battle Mr. Guthrie gives the vivid picture which only an eye-witness can give, in his "Clinical Lectures." The French were strongly posted at the head of a valley. The British army advanced along the valley and the heights on either side. Guthrie's Regiment, the 29th, now commanded by Col. Lake, and the 82nd Regiment, advanced in a line. "A line of two deep," says Mr. Guthrie, "either for attack or defence, is peculiar to the British. All other nations attack in column, but British disciplined troops can do what none others can do; and no day of ordinary parade could appear more beautiful than this. We advanced in this manner in perfect order and in ordinary time, till the red tufts, nay, the very faces of the French line could be distinguished. Lake and his horse seemed both praneing with delight. I was told my place on such occasions was seven paces in rear of the colours; (we then knew no better)." The French retired to the heights behind them; the English followed, and, after a desperate hand-to-hand fight, in which the 29th suffered severely, and the gallant Lake fell, were masters of the field. The chief surgical duties after the battle devolved on Mr. Brown, the Surgeon of the 9th, and Mr. Guthrie; the Hospital Staff and supplies were a long way in the rear.

On the 19th he started for the army at Vimiera, and was present at the great battle of the 21st. It was here that he acquired that contempt for wounded arteries, that disbelief in the necessity of tourniquets, and that confidence in the common-sense truth, that a finger and thumb are sufficient to stop the mouth of the largest artery, which he never afterwards failed to inculcate.

"I had cut off," he says, "two or three legs with the help of my assistant, when at last, in amputating a thigh high up, the tourniquet-buckle broke, and it fell to the ground; the bone had just been sawn through, and the limb fell with it—the patient was likely to bleed to death. I seized the bleeding end of the femoral artery with the finger and thumb of one hand, and compressed the artery in the groin against the pubis with the other; while my assistant, Mr. Curby, put a ligature on the vessel above my thumb. I found I had perfect command of it with each hand, and when it was secure, and we had time to recover from our alarm, I could not help saying, Why what could Mr. John Bell mean by frightening us all so, by saying it was impossible by ordinary pressure to prevent the passage of blood through the femoral artery? Thinking, however, I had met with an exception to the general rule, rather than that I had found out the general rule itself, and that Mr. J. Bell might still be right, and I in the wrong, I went into the village of Vimiera early next morning to try the point on another amputation or two. I worked away all day, few people being more gluttonous of work, and established my fact, that I was right, and that Mr. J. Bell had given the exception, and not the rule. Since that, you know, I never apply a tourniquet, for various reasons I have assigned in my work, except when I have bad assistants."

Mr. Guthrie was at no pains to conceal his contempt for his civil brethren, who "lived at home at ease," and, as he ironically observes, acquired a great deal of useful information, but adhered to a timid, operose, and what the vulgar would call pottering style of Surgery. When he came home, he invited Sir Charles Bell and Sir Antony Carlisle to witness an amputation at the shoulder-joint, at the York Hospital. To their desperate alarm, he used no tourniquet nor compression at all; and that they might the better remember their lesson, he let the axillary artery spirt a quantity of blood over their faces as they were looking on, that they might see how easily and completely the bleeding was immediately checked by the finger and thumb.

After the battle of Vimiera followed that bloodless victory called the Convention of Cintra, by which the French evacuated Portugal, and left the whole kingdom in the hands of the British. Much reviled it was at the time; and although defended by the Scottish historian, Alison, like an attorney rejoicing at the compromise of a doubtful law-suit, yet our hero condemned it stoutly.

After the glorious disaster of Corunna, from the time when Sir Arthur Wellesley took the field in good earnest, Guthrie was with the army in every engagement,—Douro, Talavera, Salamanca, and Vittoria, and narrowly escaped with his life from the last shot fired by the French at Toulouse before the peace. His works abound in details of the steps made in Surgical science and practice after every engagement; so that every trophy gained by British valour is combined with some fresh triumph of Surgery.

After the peace of 1814, Mr. Guthrie came to London, and published his work on gunshot wounds, which is dated 24th March, 1815, from his house, 36, Jermyn-street, St. James's. But the peace of Europe was again disturbed, by the return of Napoleon from Elba; and Mr. Guthrie, this time as an amateur, joined the English army on the evening of the Battle of Waterloo,—too late to gain a medal, but in time for plenty of hard work.

After this, he returned to London, and for forty years was engaged in the laborious and successful practice of Surgery. He soon rose to the highest honours of his branch of the Profession. He was elected Assistant-Surgeon to the Westminster Hospital in 1823, and full Surgeon in 1827; in 1824, he was elected one of the Council of the Royal College of Surgeons. He delivered the Hunterian oration in 1830, and enjoyed the honour of the Presidency thrice, namely, in 1833, 1841, and 1854.

Soon after his establishment in London, he became Surgeon to the new Ophthalmic Hospital, which was established in 1816, in Warwick-street, Golden-square, and afterwards removed to King William-street, Charing-cross. The circumstances attending the foundation of this Hospital were extraordinary enough. Suppurative inflammation of the conjunctiva, under the names of Egyptian, purulent, and contagious ophthalmia,—the result of dirt and bad discipline for the most part,—was at once the scourge of our armies, the terror of the public, and the subject of some of those bitter personal controversies in which members of our Profession will occasionally indulge. Certain individuals boasted of their powers of curing this malady; and one in particular is said to have resorted to a dishonest piece of charlatanry in support of his claims. Two soldiers of the 29th had been pronounced incurably blind by Guthrie; yet the eye-curer in question produced these men, and showed that they could read out of a book. It is alleged that they had learnt by rote, first of all, the passages which they pretended to read, and that they were really as blind as Guthrie had pronounced them to be. This piece of chicanery induced Guthrie's friends to establish an Eye Hospital, in which his powers of treating diseases of that organ might have fair play. The Hospital at its origin was essentially military; the 12th, 16th, and 90th Regiments each contributed a day's pay. Lord Strafford, the Duke of Richmond, and other Military men of rank were among its warmest supporters and patrons.

It seems to be the fate of those who meddle with what is now vulgarly called *speciality* in practice, to be engaged in perpetual hostility; and Mr. Guthrie was at times beset with squabbles of the same kind as those which have since infested practitioners who have explored the heart, the nervous

system, and the uterus. One curious passage there was in these disputes, which we will mention, in full confidence that we can do so now without rousing one trace of ill feeling.

Respecting purulent ophthalmia, arising as it does from the direct local application of a poison to the affected part, Mr. Guthrie seems to have seen the importance and common sense of attacking it by local measures, capable of counteracting the effects of the poison, instead of the circuitous and debilitating processes of bleeding, and purging, and nauseating, which, too often, left the patient a mere wreck, and did not save his eyes. Moreover, with plain common sense he denied that the eye was so exquisitely delicate or sensitive an organ as to forbid the use of powerful local applications, and he used extensively an ointment of nitrate of silver which has since become sufficiently well known. Of course this proceeding shocked the prejudices of the day, and subjected Mr. Guthrie to some ridicule. A correspondent in the *Lancet* (No. 204) in 1827, gives a humorous description of him, sitting in the reception-room at the Hospital in Warwick-street, before a table covered with caustic drops and ointments of every colour, and every degree of acrimony, marching in his blind patients by squads of ten at a time, and summarily popping into the eyes of each some of his favourite applications. This letter, which now would provoke a hearty laugh, was then considered to afford stuff for an action at law, which, however, Mr. Guthrie had the good sense to abandon before it came to trial. His plan of treatment, however, though it may have been carried to excess, (and what is not?) is now reduced to its proper proportions and established as a principle.

In this, as in other things, was manifested Mr. Guthrie's great characteristic,—his determination to go straight to the point; to take the bull by the horns, as the vulgar say; to do everything in the most efficient and direct manner, no matter what the obstacles; and no one had a greater hatred of timid, temporizing, round-about, and half-and-half measures.

We may illustrate this by two examples, in which the character of the man is shown conspicuously. One is, his incessant aphorism that a wounded artery should be tied at the wounded part; and that the operation for aneurism—that is to say, the tying the artery at a distance above the wound—should not be applied to cases of wound. "The proper treatment of wounded arteries," he incessantly repeats, "is due to the Surgery of the Peninsular War." It was by dint of reiterated observation of cases after Roliça, Vimiera, and Albuhera, that he established the facts of the necessity of providing against bleeding from both orifices of a severed artery; and that ligature of a trunk high up does not prevent bleeding from the lower orifice; or, that if it does so, it runs the risk of checking the circulation to such a degree as to bring on mortification. Nothing has ever been written in our Profession which contains a more ample statement of facts, and more clear and logical deductions, than Mr. Guthrie's commentaries on this particular point; while, for a *reductio ad absurdum*, we may safely refer to his withering and sarcastic statement of cases in which the opposite practice was followed.

The second example is his mode of dealing with the posterior tibial artery, by cutting through the calf, instead of cutting on one side of it, and turning the muscles back. We give no opinion on the merits of these operations; because if we admit, that Mr. Guthrie could fairly call the one, as he did, "painful, bloody, difficult, tedious, and dangerous," it might not be easy to speak of the other in terms more complimentary. The character of the man, however, is unmistakably shown. He hated a roundabout course when a straight one could be had; and his experience of frightful sabre-gashes in the Peninsular War had deprived him of all squeamishness about cutting through muscles.

In the same spirit he proposed to saw through the lower jaw-bone to get at the internal carotid artery. Frightful enough such an operation seems, planned in cold blood; but there was nothing in it frightful to a man familiar with the effects of shot and shell on the human countenance.

Time would fail us if we were to attempt to record here the opinions held, and the improvements advocated by a man whose industry and opportunities of experience were unexampled; who made every branch of the Profession his own, and continued a student to his dying day. He claimed, as the results of his Peninsular practice, many things which were brought forward ten years later as discoveries; more especially the treatment of sloughing phagedæna by acids, and the treatment of phlegmonous erysipelas by incisions. His works on Gunshot Wounds, on the Operative Surgery of the Eye, on Injuries and Diseases of Arteries, on Hernia, on Compound Fractures, on Injuries of the Head, Chest, and Abdomen, and on Diseases of the Bladder and Urethra, show his multifarious labours. It must be recollected that each work is the fair result of personal labour, and abounds in anecdotes and cases which make it not less amusing as a chronicle of personal adventures during the war, and of details which do not find their way into the works of the systematic historian, than valuable as a mere work on Surgery.

In speech he was blunt, and always to the point. As an Examiner at the College he was dreaded, but was always kind and considerate. He was a General Practitioner in the truest sense of the word, and up to every kind of Professional work. If egotistic, if he speaks of "British Surgery" as having been put on a scientific footing after the Battle of Salamanca, when, in reality, it was his own opinions that were matured and proved, he did, in truth, identify British Surgery with his own opinions; and many a man owed his life or limb to his pertinacity in maintaining them.

His last literary labour was the publication of the sixth edition of his "Commentaries on Military Surgery," in November, 1855, in which he comprised an account of the more interesting surgical cases before Sebastopol, which had been sent to the veteran, as an affectionate tribute, by the army Surgeons. In this last war, several of the schemes which he had planned were carried out—such as excision of the head of the femur;—and if the result was not what was hoped, the miserable state of the army is a sufficient explanation.

In the course of 1855, the writer noticed with regret the signs of a failing heart, such as breathlessness and violent cough on going up-stairs, which Mr. Guthrie exhibited. These symptoms gradually increased and proved fatal; but, as he once expressed to the writer his very great repugnance to be cut open after his death, we presume that the precise nature of the morbid changes was not verified by dissection. We regret to be obliged to state, as a matter of fact, that he had, unknown to his family, contracted an imprudent marriage a year or two before his death; a fault, if it be one, which had its source in the *perfervidum ingenium* which he derived from his Celtic ancestors, and in the immense vigour and activity which characterized his entire life; a life which, if estimated by deeds, far outmeasures that of half-a-dozen ordinary mortals.

If we may sum up Mr. Guthrie's character, we may say, that few men have ever possessed a happier combination of mental vigour and resolution, quickness of perception and fertility of resource, with great bodily strength and dexterity. He could do anything: he could keep a ship's reckoning and steer her; twice, at least, he saved himself and a ship's company from wreck; he attacked and captured a gun; he taught his men, on a march, how, by placing their backs against the bullocks of the wagon, they could defend themselves against cavalry; in fact, he was every inch a soldier, and possessed qualities which, in any profession but our own, would have carried him to the highest pinnacle of honour. He never ceased to remonstrate against the injustice and parsimony with which the Medical Service is treated, as if they were mere civilians, whose place was out of danger, like clergymen and commissaries. As he said justly, the Surgeons of the Fusilier Brigade in Spain were under more fire than half the general officers of the army. After all his services in the field and in civil life, he died without a title. He was offered one military title of which he could not afford the contingent expenses of, and another civil one which he justly declined.

He has left one son, Mr. Charles Gardiner Guthrie, who is well known to the Profession, and is Surgeon to the Westminster and Ophthalmic Hospitals.

REVIEWS.

The English Cyclopædia. Natural History Division. London: Bradbury and Evans.

The "Penny Cyclopædia" was one of the best and most complete cyclopædias of its day. The progress of the natural sciences has, however, rendered it to a considerable extent incomplete, and a new edition became every day more necessary.

The "English Cyclopædia" is a new edition of the Penny; but in order to prevent so long a period to elapse as would be necessary for completing the work in a continuous series, the proprietor has divided the whole of the subjects into four parts, comprising Geography, Natural History, Biography, and the Arts and Sciences. This method, whatever may be its inconveniences, has certainly the advantage of a speedy completion of the different parts. In consequence of this arrangement, we have now the Natural History division, complete in four volumes. These volumes, we find, embrace Natural History in its widest extent: for not only have we an account of the structure, physiology, and forms of plants and animals, but also of man. The articles, we observe, are, many of them, founded on those which appeared in the "Penny Cyclopædia," but scarcely any are the same. Much effete and now useless matter has been erased, while large additions have been made to almost every article.

In the general plan on which the articles are written, we observe great improvements on the "Penny Cyclopædia." In the grouping of Natural History objects, in the description of orders, families, genera, and species, a consistency is observed which we in vain look for in the parent Cyclopædia. The references to British Natural History species seems to be nearly complete, while all the more common forms are described at length. Another great advantage of this work over its predecessor is the vastly increased number of references. In fact, all the genera and species of the more common minerals, plants, and animals, are found in the alphabetical list, either described or with references.

With regard to many of the new articles, they are among the most important contributions to the Natural History literature of the day. The article CIRRIPEDIA was, we find, revised by Dr. Darwin; that on MOLLUSCA was written by Mr. Huxley; FORAMINIFERA by Professor Williamson; POLYZOA by Mr. Busk. The articles on Physiology, which, in the early part of the "Penny Cyclopædia," are much behind the time, have been brought fully up to the time in the "English Cyclopædia," and the Editor, Dr. Lankester, has availed himself extensively of the labours of Carpenter, Kirkes, Valentin, and other systematic writers on this subject. Among the numerous articles on this Science we would especially refer to an admirable one on Locomotion in Animals, by Mr. Bishop, which, although originally published in the pages of a popular journal, contains one of the best expositions of the whole subject of locomotion with which we are acquainted.

Although this work is not intended to supersede any of the valuable manuals devoted to particular departments of Natural History and Medical Science, it will be found most valuable in the library of the Medical Student and Medical Practitioner, and reflects very great credit on Dr. Lankester, who has not only conducted the editorial department, but has also contributed many valuable articles, among which we should especially notice those on "Man," "Food," "Acalephæ," "Coal," and "Botany." Its price also puts it within the means of all, although the four volumes contain nearly three thousand double-columned pages and five thousand woodcuts.

Painless Tooth Extraction without Chloroform. With Observations on Local Anæsthesia by Congelation, in General Surgery. By WALTER BLUNDELL, Surgeon-Dentist to the Metropolitan Free Hospital. Second Edition. 8vo., pp. 75. London: 1856.

Painless Tooth Extraction by Congelation. By J. RICHARD QUINTON. Pp. 154. London: 1856.

Mr. Blundell lays before the Profession and the public the results of five years' experimenting directed to the discovery of the means of gradually applying cold so as to obtain its anæsthetic property in tooth-drawing. The account of the employment of this agent in Dental Surgery is preceded by a well-written and accurate history of the modern discovery and trials of anæsthetics, namely, nitrous oxide, sulphuric ether, and chloroform. The advantages of congelation, its freedom from danger, the facility of its local application, and the complete control of the operator over its application, are all ably set forth. The preference to be given to congelation over etherization in the majority of Surgical operations is strongly maintained. Mr. Blundell does not arrogate to himself the merit of having originated this mode of suspending sensation in parts; he gives all the credit of the discovery to Dr. James Arnott, to whom it is due.

The particular purpose, however, of Mr. Blundell's book is to make known the possibility of safely and certainly extracting teeth without suffering. Mr. Blundell states that he has invented an apparatus whereby congelation is so gradually applied as to arrive at an unalterable temperature, without interfering with the rapid conduction of heat, "by means of which a continuous supply, of unlimited duration and invariable degree of cold, can be kept applied to any part of the body." *No description, however, of this apparatus is given.* The author asserts very plainly that no injurious effects upon the living tissues have followed the judicious and proper method of using intense cold as an anæsthetic agent. A list of cases is given, illustrative of its employment in his practice. Whether an equally successful and most desirable result will follow in the hands of others, remains yet to be seen. Meanwhile we are informed upon very good authority, that a large sum of money is demanded for permission to use the patented apparatus, by which congelation is thus applied. However defensible such a proceeding may be in a commercial point of view, it is not, if true, calculated to spread scientific or professional acquaintance with painless dentistry.

Mr. Quinton's work is stated, on its title-page, to be a "fourth edition, enlarged." That it has been "enlarged," is no recommendation,—on the contrary, we think the fourth edition would have been greatly improved if *abridged;* shorn, at all events, of its irrelevant bits and scraps touching physical geography, ethnology, geology, astronomy, chemistry, natural history, etc. One sheet of sixteen octavo pages would have held all that Mr. Quinton has divulged regarding the application of congelation to dentistry. The fine writing to make a book of one hundred and fifty-four pages, could well have been spared.

A Practical Treatise on Vesicular Hydatids of the Uterus. By HENRY ASHLEY, M.D., etc. 8vo. Pp. 110. London: 1856.

THIS essay contains a complete epitome of all that has hitherto been made known regarding these adventitious growths;—including their pathology, semeiology, prognosis, treatment, and medico-legal relations. We confidently recommend it to those of our readers who may be interested in uterine diseases.

GENERAL CORRESPONDENCE.

HEALTH OFFICERS AND WORKHOUSES.

[To the Editor of the Medical Times and Gazette.]

SIR,—In your last week's Journal you allude to the legality of Health Officers looking to the ventilation of Workhouses, and state that the Poor-law Board had given it as their opinion in the case of the Holborn Workhouse that the Health Officer has no right to inspect the Workhouses. This, I beg to inform you, is not exactly the case, the answer, as read to the Board of Works the other night, being contradictory: it first of all says it is the Health Officer's duty to point out the best way of ventilating the Workhouse, and then adds that he has no legal right to enter it without the permission of the Guardians, as it is *not* a public building within the meaning of the Local Management Act.

Several members of the Board expressed anything but satisfaction at the ambiguous response of the Poor-law Oracle, and wishing to know whether they are or are not responsible for the sanitary condition of the Workhouse, they agreed to refer the matter to the Board of Health. It could not be referred to a better authority, and I am sure that the talented Secretary of that Board, without taking six weeks to consider the matter, will be able to tell us what the law really is.

Whatever may be the legal definition of a Public Building, I must say that the few Guardians who object to the inspection of the Health Officer, assign valid reasons for their objection. They say "we have one Inspector already, and if he is not able to detect among other defects those of ventilation, we ought to have one who is; otherwise, with two Inspectors, we shall have, as actually occurred in the present instance, one going round one week, who "reports the House to be in such excellent order that he authorizes us to put 50 more paupers in it,

whereas the Health Officer the following week condemns the ventilation of half the House, and says it is so overcrowded as to be prejudicial to health. Whom are we to believe?"

It appears to me that the Poor-Law Department will never work satisfactorily until the Inspectorships are given to members of our own Profession. Then we should hear no more of Mr. Griffin's grievances, and the public would have a guarantee that the men appointed had a knowledge of the Natural Sciences as well as (what is of more importance) of the habits, prejudices, and requirements of the poor. At the present time I believe nearly all the appointments are held by gentlemen who have been educated as barristers and solicitors, who are likely to have less of this knowledge than perhaps any other class of the community. I am, etc.

SEPTIMUS GIBBON, M.B. Cantab.
Health Officer, Holborn District.

33, Finsbury Square, May 7, 1856.

P.S.—I enclose you my report on the ventilation of the Holborn Union Workhouse, which I beg to say is rather under than overstated.

TO THE BOARD OF WORKS, HOLBORN DISTRICT.

Gentlemen,—When a death from fever, and others from preventible diseases, occurred in the Union Workhouse, I received the order of your Board to inquire to what extent such deaths had depended on removable causes. In company with the Medical Officer of the House I have made an inspection, and now beg to submit my report for your consideration.

The new portion of the Institution, occupied exclusively by males, consists of large, airy wards, well ventilated by openings in the ceilings, which communicate freely with the external atmosphere. These Wards are by no means overcrowded; for instance, the men's infirmary, No. 7 Ward, with 32 beds, and an allowance of 500 cubic feet of space to each, contains only 28 men. The same cannot be said of the women's quarters. Here the buildings are badly constructed, the Wards are low and ill-ventilated, measuring from 9 feet to 9 feet 10 inches in height.

There are several contrivances for ventilating these rooms. Perforated glass is inserted into nearly all the windows, and Arnott's ventilators into each of the chimneys. There are also openings into the ceilings, which are, however, useless, inasmuch as they do *not* communicate with the external air. Notwithstanding these means of ventilation, and the fact of some of the windows being open, (thereby exposing the inmates of these low rooms to strong currents of cold air,) I found the Infirmary Wards, Nos. 33 and 34, Ward 36, and the Nursery Ward 31, close, and smelling offensively. They were crowded in such a manner as to be prejudicial to health. For instance, the Nursery, with 22 beds, contained 18 women and 31 children, besides attendants; a number of 12 in excess of that sanctioned by the authorities,—viz., 12 women, and 25 children. The cubic space of this room is 11,844 feet. Hence it appears that, without reckoning the attendants, 320 feet of air ought to be allowed to each person, but this allowance was reduced to 251 cubic feet. Now, bearing in mind that each individual inhales 266 cubic feet of air in the course of twenty-four hours, it is obvious that the space actually allowed is not sufficient for the preservation of health. It is a mistake to suppose that infants require less pure and fresh air than adults. Science and experience alike prove the contrary. As I had not the sanction of the Board of Guardians, the Master of the House did not feel at liberty to allow me to test the impurity of the air, therefore I cannot state the exact amount of carbonic acid gas it contained. But, to judge from the closeness and offensive smells when I entered it at noon, when some of the windows were open, I should say the air of this room was charged with noxious impurities.

Considering the great mortality among children generally—for instance, of the fifteen deaths that have taken place in this Workhouse during the last three weeks, eight have been those of children under two years of age—and that many of the children in this ward are sick as well as helpless, I am strongly of opinion that these children, like the other invalids, should be allowed 500 cubic feet of air a-piece. Therefore I would suggest the propriety,

1st. Of removing the Nursery to a spacious and well-ventilated room or rooms on the upper storey.

2nd. Of strictly limiting the admissions to such Nursery, so as to allow the above-mentioned space to each individual.

With a view to the more judicious and effectual ventilation of the Wards inhabited by the sick women, I suggest that, if practicable, the roof be raised two or three feet, and the same plan of ventilation be adopted as is found to be so efficient in the new building.

In other respects the sanitary condition of the House, full as it is at present, is most satisfactory, and reflects great credit on the Officers and Managers. The ventilation of the school is good. The beds, bedding, and wards generally are remarkably clean. The food is of the best quality, and appears to be free, at least, from any noxious adulteration.

I have the honour to be, Gentlemen,
Your obedient, faithful servant,
SEPTIMUS GIBBON, M.B. Cantab.

33, Finsbury-square, March 15, 1856.

OUR SCHEME OF MEDICAL REFORM.

[To the Editor of the Medical Times and Gazette.]

SIR,—Allow me to congratulate you on propounding "a scheme of Medical Reform" in your last Number, in my opinion, more worthy the status of the Profession, and the interests of the public, than any hitherto introduced; simple, yet comprehensive, and sufficiently just to all existing and opposing institutions, as to give them a common share in re-casting the new material from the old.

I hope the Profession and the Government will be induced to give their serious attention to your "scheme," the great object of which, the "common portal," has long been the desideratum of many intelligent and experienced Practitioners; as for Colleges of Physicians, Surgeons, or aught beside, who are at variance with each other on matters affecting their own pride and emolument, they must sooner or later give way to the pressure from without, as in this free and enlightened land many corporate monopolies have done. I do not think the Physician pure, or Surgeon pure, of the present day could reasonably take offence at your plan, as it could not affect him, and the General Practitioner of the present day who emerges into the pure Physician or Surgeon, would under it become a legitimate, whereas he is now looked upon, for the most part, by the Profession and the public, as a mongrel. In any new legislation would it not be very desirable that all Druggists should pass through a prescribed ordeal of education and examination, and be licensed? Wishing, Mr. Editor, that your "scheme" may have due consideration given to it, and that the Government may not yet tire of us for this laudable object. I am, &c.

Nailsworth, May 6, 1856. THOMAS STOKES.

THE USE OF SEA WATER FOR SANITARY PURPOSES.

[We have received the following letter from a Practitioner residing in a seaport town.—ED.]

[To the Editor of the Medical Times and Gazette.]

SIR,—Your Editorial Article in this day's Number, under the head of "The Week," alludes to Mr. F. Fuller's proposal, in the *Times* of Tuesday last, to supply London with pure sea-water for sanitary purposes, especially for cleansing the houses and streets; and you concur in the idea that it is worth grave consideration. For your own information, and that you may draw your own conclusions, I beg to tell you that in this town, where cholera prevailed in the summer of 1854 to a greater extent than at any former period, the Commissioners last year came to the determination to water the streets during the hot months with fresh water, it being believed that the use of sea water for that purpose had been prejudicial to the health of the town during the former season.

MEDICAL REFORM.

[The following letter was sent to the "Association Journal," but not inserted.—ED. *M. T. & G.*]

[To the Editor of the Association Medical Journal.]

SIR,—In your leader of the 12th instant, referring to the Medical Reform Bill, I have been exceedingly sorry to meet with the following sentence:—"We have no doubt whatever that the sifting of the memorial of the various public bodies will open the eyes of the Home Secretary to the fact, that the

opposition to the Bill by the different corporations has been wholly selfish, and marked by a disregard of the general good of the Profession." I cannot but consider these observations very illiberal, and by no means a truthful or becoming expression of the general sentiments of that great and influential Medical Association on whose behalf you write. My attention was next directed to the letter of Mr. Mayo, of Winchester, of which I entirely approve, and, encouraged by his good example, I am induced to take the earliest opportunity of following it, by publishing my disapprobation of the sentiments conveyed in the passage I have quoted. Mr. Mayo refers to the sneering and disrespectful tone in which several of your recent leading articles have been written against the Society of Apothecaries. My ground of complaint is of a graver kind, inasmuch as all the existing Medical Corporations who are opposed to this Bill are accused of "motives wholly selfish, and marked by a disregard of the general good of the Profession."

This, surely, is not the spirit in which a general Medical Reform Bill ought to be carried out, though, possibly, it may suggest to some an idea of the advantages derivable from private Reform, and make them think that if every member of the Profession would diligently apply himself to the reform of one individual, the whole might work on well. I hold the College of Surgeons and the Society of Apothecaries in high esteem, and it is by no means clear to my mind that the alterations suggested by the Bill would be to the advantage of the Profession, either in education or practice. I confess to having hastily signed a Petition in favour of the Bill, at a time when all I knew of it was the four points, which were extensively published, and of which I highly approved; but, on reading the Bill itself, and becoming acquainted with the many collateral subjects of which it treats, I regretted my indiscretion, and would willingly have signed a counter-petition. As far as my observation goes, one great fault laid to the charge of the Apothecaries' Company, viz., that they do not protect the licensed, by punishing the unlicensed Practitioner, is more properly attributable to ourselves, and dependent upon a want of moral courage, to adduce instances and substantiate evidence of the irregularities we complain of, without which it is impossible for the Society to act.

That the education now required by the Apothecaries' Society is exceedingly good, every one, I think, must admit. I am far from considering the system perfect, yet I believe that if the individual reform I have referred to were general, if every man would scrupulously shun dishonourable conduct, competition, or interference with his neighbour; if we had more of the *esprit de corps* met with in other Professions; and if every one would discontinue the practice of sending out trading shop-bills, made up by the quantity of drugs the patient may have been induced to take, and substitute for them a memorandum of Professional attendance and treatment, including always the number of visits which have been paid;—these things, I think, if honestly carried out, would do more to elevate the *status* of the General Practitioner than all the Reform Bills put together. Of the man who departs from the first of these requirements I would ever think and say, "*Hic Niger est, hunc Tu Romane Caveto.*"—I am, &c.

H. Terry, F.R.C.S.,
Senior Surgeon to the Northampton General Infirmary, and late (for 32 years) Surgeon to the Northamptonshire Militia.

Northampton, April 15, 1856.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, March 18, 1856.

Mr. Arnott, President, in the Chair.

(Continued from page 396.)

Mr. Obré exhibited specimens of

DISEASED KIDNEYS.

The two organs shown had been removed from different patients, both inmates of the Somerset Lunatic Asylum, and had been sent up by Dr. Boyd, in order to be brought before the Society. The first, which was slightly enlarged, showed the cortical substance almost destroyed, by the pressure of a soft, putty-like material, which filled and distended the pelvis. The second was an atrophied organ, about one-third its normal size. Small spiculæ of earthy matter were distributed through its structure, and so incorporated with the adjacent parts as to make it difficult to decide in what tissue they had originally been formed. Under the microscope, crystals of cholesterine were seen.

After some conversation, in which Mr. Gray, Dr. Bristowe, Dr. Quain, and Dr. Hare, took part, the specimens were referred to the two first-named gentlemen for further examination.

Mr. Hutchinson brought forward an

URINARY CALCULUS.

The interest of the specimen consisted in its relation to the symptoms which had existed prior to the operation. The patient, a boy, aged 10, had come under Mr. Hutchinson's care, about a year ago, on account of the symptoms of stone in the bladder. From some of these he had suffered almost from birth. He was, however, able to run about as other boys, and being told (as a test) to jump off a chair, did so without the slightest appearance of inconvenience. He continued under care for a few weeks, the symptoms complained of being, however, so trivial, that his mother would not allow him to be examined with the sound. After about ten months he again came under observation for an aggravation of the former condition, and on sounding, a large stone was at once detected. Lithotomy having been performed, a mulberry calculus, weighing half-an-ounce, small for its weight, and rough in every part with nodosities and sharp spiculæ, was removed. Mr. Hutchinson remarked, that the case well showed how deceptive were all inferences from the symptoms caused as to the size, etc., of the stone, and how much more the pain, etc., suffered depended upon the state of the bladder, and of the patient's health, than upon the rugosity or weight of the stone. A child, on whom he had performed lithotomy during the same week as the above, and removed a smallish lithic acid stone, smooth in every part, had suffered beyond all comparison more than the boy referred to. A good illustration of the same fact had occurred within a few weeks past to Mr. Cock, who had, in Guy's Hospital, removed from an infant, whose sufferings had been most severe, a stone, perhaps the lightest for which lithotomy was ever performed, it weighing only 2½ grains, and being not much larger than a good sized pea.

Tuesday, April 1, 1856.

Mr. Arnott, President, in the Chair.

Dr. Bristowe read a report, by Mr. Gray and himself, on Mr. Obré's specimen of

DISEASED KIDNEYS.

Respecting the first, the examination of the putty-like material left no doubt but that it had resulted from the degeneration either of pus or tubercle, and was not, as had been hinted, of hydatid origin. It consisted of fatty, earthy, and albuminoid matters. The second was an example of cystic disease of the kidney, in which the walls of many of the cysts had undergone ossification. The hard capsules which surrounded them consisted of true bone. Apart from this interesting and very unusual circumstance, the organ illustrated another very rare occurrence. In its pelvis was a calculus the size of a horse-bean, which was united by sabulous material to the mucous membrane. About the much debated question of adhesion of calculi there could, in this instance, be no doubt. In the ureter was an impacted calculus, which had occluded its canal, and had probably been the cause of the disease of the organ.

Mr. Sibley showed, for Mr. Shaw, specimens from a case of

CANCEROUS ULCERATION OPENING INTO THE PLEURA.

The patient, a woman, aged 53, had been the subject of cancer of the breast for six years. Repeated sloughings had taken place, and after one of these it was found that about two inches of the fourth rib, together with the pleura costalis and the intercostal muscles, had disappeared. An opening into the cavity of the pleura was thus left into which a

child's fist might easily have been thrust. The lung could be seen collapsed, and covered with a layer of lymph lying at a distance of several inches from the parietes of the chest. It rose a little with each expiration, and receded during inspiration. The patient's breathing was not greatly interfered with, and she lived in this condition for a month.

Dr. Barker exhibited a specimen of

HYPERTROPHIED HEART.

The patient, a man of middle age, had been admitted under his care into St. Thomas's Hospital, with the statement that he had only been a few days ill. It appeared, however, that for some months past he had at times suffered from slight attacks of palpitation of the heart. At the time of admission he had great dyspnœa, from which he continued to suffer until the time of his death, which occurred one month afterwards. The physical signs had consisted in a loud systolic bruit at the apex, and a doubtful one over the base. There was a very marked thrill perceptible in the brachial arteries. The existence of an aneurism in the chest had been suspected. At the autopsy the heart was found very greatly hypertrophied, weighing twenty-seven ounces. Its cavities were greatly dilated, but the valves were healthy, the incompetency of the mitral having been due to the great dilatation of the auriculo-ventricular orifice.

Dr. Ogle showed an example of

LARGE CYST IN THE LEFT CORPUS STRIATUM.

The patient was a man of middle age, who was brought into St. George's Hospital, with inability to pass water, owing to spasmodic stricture and enlarged prostate. He had not been subject to anything of the kind before. He walked into the Hospital dragging the right leg; but could not in any degree move the right arm or hand, which were very much thinner and much shorter than on the opposite side. No power of motion existed in the arm; but neither in the arm or leg was there any loss of sensation. The patient died of inflammation of the bladder, and abscess near the base of the bladder, in connexion with false passage in the urethra. The dura mater was adherent to the calvarium, and was lined over the surfaces of the cerebral hemispheres by a thin layer of blood-speckled false membrane. The external and posterior parts of the left corpus striatum were quite destroyed, and very slightly also the contiguous part of the left optic thalamus; and, in the place of the lost portions, was a large cyst, covered by the thickened lining of the ventricle, and containing clear fluid. There was also disease of the kidneys, etc.

Dr. Ogle also exhibited a specimen of

ANEURISM OF THE MIDDLE CEREBRAL ARTERY.

The aneurism, easily seen on separating the right middle lobe at the base of the brain from the anterior one, was altogether equal in size to a small walnut. It had burst, and formed a cavity underneath and outside of the right corpus striatum, which communicated freely with the ventricles, which were full of blood, and having their septa broken down and walls softened. The general arterial system of the brain was natural, as well as its other parts. The kidneys and liver were diseased; the heart was healthy in appearance, but very fatty, as were also the small muscles of the balls of the eyes. The ventricles of the heart were empty, and the left one contracted. The specimen was removed from a man of middle age, who had been accustomed to fits, which were only of short duration. After a "comfortable" dinner on the day of his death, he was brought into St. George's Hospital, perfectly unconscious and immovable, in which state he had remained since a fit shortly before admission. His pupils were very remarkably contracted, and he had arcus senilis; and in this state he remained until he died, a few hours after the fit.

MEDICAL SOCIETY OF LONDON.

Saturday, May 3, 1856.

Dr. Chowne, President, in the Chair.

Dr. Willshire exhibited the heart of an individual who came under his care in a hopeless state after having been for some time attended by a homœopath. There was great thickening of the aortic valves and considerable disease of the mitral valve, with extensive pneumonia in both lungs. This result, he said, could not be regarded as surprising, considering the nature of the therapeutic principles of homœopathy.

Dr. Gibb mentioned, that some time since an altercation having taken place between a homœopathic practitioner and the physician of a hospital at Montreal, the former had 24 cases placed under his care for trial. One of these was a case of pneumonia, which, under his treatment, became so alarming that it was taken from him, and the patient fortunately recovered.

Dr. Willshire said, that in the case he had mentioned there was a slight puckering on the pleural surface of the lung, beneath which he found a single tubercle, about the size of a pea, in a state of retrograde metamorphosis, in a calcareous condition. This was the only evidence of tuberculous deposit which he observed.

Mr. Milton exhibited some specimens of urine passed by a patient who, fifteen months ago, was in an extremely anasareous state, the urine being so albuminous that it became quite solid on the application of nitric acid or heat. He administered elaterium five times; the woman appeared very little benefited, but she gradually recovered, and no trace of albumen could now be detected by the same tests. He suggested that an action having once been set up by the elaterium, that agent need not be again administered.

Dr. Gibb said that albumen might be present in the urine, though it could not be detected by nitric acid or heat. In some cases a more delicate test was required, such as bichloride of mercury or ferrocyanide of potassium.

Dr. Gibb exhibited a fœtus between four and a-half and five months old, which he said lived half an hour, having breathed, and moved, and passed meconium. It weighed 14¼ ounces.

Dr. Eyres said he was once called to a case of abortion of twins; they were under five months, but one of them gasped several times.

Mr. Baker Brown related the following case.—

PROCIDENTIA UTERI—OPERATION—CURE.

Julia Lockwood, aged 21, admitted into St. Mary's Hospital, February 29, 1856. Single. *History*:—Has had no child, abortion, or miscarriage; admits having had intercourse; three years ago was quite well, but about that time, lifting a heavy weight, strained herself; the accident happened while at her occupation of riband weaving; immediately afterwards pain and bearing down came on, and a leucorrhœal discharge from which she habitually suffered was very much aggravated; at the end of a week the womb came suddenly through the os externum while she was walking. Since then the womb has always protruded upon assuming the upright posture, and during defecation. She can return it when lying down, but it does not recede without manipulation. Leucorrhœa has persisted from the date of the protrusion. The catamenia occur every month, but the discharge is excessive and lasts for seven days. Micturition is difficult when the uterus is down. She received a severe blow on the vulva when a child, and lost much blood from the injury; has had no other illness. On examination Mr. Brown found that the uterus, vagina, and bladder protruded completely, the uterus being larger than natural, and the os much ulcerated. March 5.—The patient having been placed under chloroform and the uterus returned, the usual operation, of taking out pieces from the sides of the vagina in the situation of the labia minora and of denuding the posterior part of the vagina, and elongating the perinæum, was performed. The usual after treatment was followed up, and late in the evening on the 7th deep sutures were removed. On the 9th, the bent catheter was removed and the urine ordered to be drawn off every three hours, in the ordinary way, and the interrupted sutures were also removed. From this date the patient steadily progressed towards recovery, and seven weeks after the operation was discharged from the Hospital completely cured. Mr. Brown related this case as being one of unusual interest from the fact, that she was only 21, and had never aborted or born children. Mr. Brown observed that no consideration of inconvenience in any future child-bearing would influence his opinion as to the propriety of operating, because her sufferings were so severe as to prevent her from earning her living in her usual occupation.

Mr. Rogers exhibited the heart of a patient who died from pericarditis, in which, he said, at the post-mortem examination, he found a fibrinous prolongation, which descended

into the ascending eava, and ascended into the descending cava. This deposit was extremely tenacious, and must, Mr. Rogers believed, have been formed before death.

Dr. Richardson read a paper on

ANTIMONIAL POISONING—AN EXPERIMENTAL STUDY.

The author commeneed by stating, that as it was his intention to lay before the Society certain original facts regarding the effeets of antimony on the animal body, rather than to recapitulate the experienees of others, he should offer but few remarks of a historical kind. He then referred to the origin of the term antimony, and the introduction of the medieine into praetice. In so doing he drew a graphie outline of the exploits of Basil Valentine, a German monk of the fourteenth century, who first used antimony as a medieine, and described its effects in a work entitled "Currus Triumphalis Antimonii." From an event eonnected with the life of this Basil Valentine the derivation of the word antimony is said to have come; and the records of this legend, as related by Dr. Richardson, caused some merriment in this usually grave assembly. Basil having observed that a preparation of antimony thrown to some hogs first sickened them and made them grow fat, thought it would be an interesting scientific and humane experiment to see whether the substance would have a similar happy effect on the sacred wearers of the cowl and cross. With these excellent intentions, and reserving his own person for after research, he dosed his fellow monks in the same manner as he had seen the pigs so successfully treated. But such was the perversity of human nature, or such the error of the *experimentum crucis*, that the result, as often occurs in experimental inquiries, was not in strict accordanee with *à priori* reasoning. The monastic eonstitution, reduced, no doubt, by prayers and long fasts, rebelled against such strong food. It was death that fattened on the experiment, not the monks, the whole of whom died after tasting the promising potion, leaving the bereaved Basil to write ultimately his famous "Currus Triumphalis Antimonii." Hence, says tradition, the name of this substance, *anti*, against, *monarchus*, a monk—the stuff that would not agree with the monks-antimony. After referring to the ultimate introduction of antimony into medieine in Paris in 1637, to the work of one Guy Patine, entitled, "The Martyrology of Antimony," to the different preparations which have at various times been used, the different positions whieh it has assumed as a medicinal agent, and the estimation in whieh it has been held by the Profession, Dr. Richardson carefully reviewed the subject of the effects, physiological and pathologieal, of antimony. Antimony, when acting as a poison, has usually been considered as exeiting certain speeifie and well-defined symptoms, such as vomiting, spasms, and other signs analogous to those of cholera. But may antimony destroy in a more insidious way? that is the question; and, eonsidering the incredible number of times this drug has been, and is being, prescribed, no question could possibly be more important. Up to the present time experimental inquiries into the effects of antimony have been very limited, and were summed up by the author in a few sentences. The special points whieh he marked out for a new series of inquiries, ran as follow:—

1. By what surfaces may antimony be received into the body?
2. Its diffusion throughout the system and its election by different organs.
3. The modes of its elimination, and the periods at which it is eliminated.
4. The physiological ehanges, or, in other words, the pathological eonditions to whieh it gives rise.
5. The modes in which it destroys life when it acts as a fatal poison.
6. The chemical changes which it itself undergoes in the organism, and the special effects of its different preparations.

From this point, Dr. Richardson passed direct to the details of experiment, and recorded the particulars of cases in which antimony was administered by injecting it into the cellular tissue and jugular vein; by applying it in the form of ointment to a wound in the skin; by inhalation, in the form of antimoniuretted hydrogen, by injecting it into the jugular vein, and by giving it in small and eontinued doses by the mouth. From these experiments the faet was confirmed that, when introduced by any of these channels, the symptoms induced were the same. The antimony in every case was freely thrown off in the excretions from the alimentary eanal, and was also present in the liver, in the kidneys and their secretion, in the heart, blood, lungs, and other struetures. That the society might have points of discussion before it, the author gave the following conclusions, some of which he considered as absolute, but thought that others might be open to modification after a more prolonged research. The paper was copiously illustrated by specimens of metallic antimony, obtained from the viscera of animals which had been destroyed by this substance; and two animals, carefully dissected, were placed before the Fellows, for the purpose of showing the pathological conditions ineident to this mode of death.

Conclusions.—1. That antimony, both as regards the symptoms it induces, and the pathological results arising from its administration, excites effects in the dog identieal with those which it excites in man; and that experiments on dogs thus afford a fair basis of comparative researeh.

2. That the skin, peritonæum, cellular tissue, and lungs, all absorb antimony, in its soluble forms, with as much certainty as the stomach; and that whether introduced by any of these channels, or by direct transfusion into the blood through the veins, the diffusion of the poison is equally complete, and its effects specifically the same. Absolute.

3. That after any such mode of introduction, antimony may be detected in the vomited and purged matters, in the stomach and the contents of the stomach, in the intestines and their contents, and in the lungs, liver, kidneys, blood, urine, heart, and even in serum effused into cavities, if such be present. Absolute.

4. That consequently the deteetion of antimony in vomited or purged matters, in the stomaeh, or the contents of the stomach, or in the intestines or their contents, can no longer be considered as any judicial scientific proof that the poison was introduced into the system by the alimentary canal at any part, as has been assumed. Absolute.

5. That antimony being absorbed with great rapidity whereever introduced, the point of surface at whieh it is taken into the system may afford slighter indication of the presence of the poison than other parts of the organism. *Ergo*, that the point of introduction can never be proved by mere chemical analysis. Absolute.

6. That antimony so applied loeally as to admit of being rapidly absorbed, seems to excite but little amount of local injury, although it excites marked loeal effects when brought by the blood to any surfaee for elimination. *Ergo*, that the appearance of intense redness or inflammation in the stomach, or other part of the alimentary eanal, in supposed cases of death from antimony, is no scientific proof, nor yet indirect evidence, that the poison was received into the system by this canal. Absolute.

7. That the symptoms of poisoning by antimony in large doses are, as a general rule, those of vomiting, purging, and rapid collapse, and that the same symptoms, somewhat modified in their course, result from small doses repeated frequently during a prolonged period.

8. That to this rule exceptions occur. To wit, that antimony, when thrown into the system in a large dose, and in such a way as to prevent its dejeetion, as by direct injection into the veins, may destroy the muscular power so suddenly that the symptoms of vomiting and purging may not present themselves. And again, that when introduced very slowly, as by application to a small wound, it may also destroy by producing simple exhaustion, without the specific symptoms of purgation or vomiting.

9. That in all forms of antimonial poisoning death occurs mainly from failure of the circulation, the respirations being continued after the cessation of the heart's beat.

10. That the pathological appearances incident to antimonial poisoning are, (*a*) general congestion; (*b*) marked fluidity of the blood; (*c*) intense vaseularity of the stomach in the course of the greater curvature, and in some cases of the rectum and other parts of the canal, but without ulceration; (*d*) a peculiar pale yellow, or an occasional dark glairy seeretion on the alimentary surface. Lastly, and contrary to the statements of Magendie, antimony seems to excite no other pulmonary lesion than simple congestion.

11. That the election of antimony by different parts of the body is as yet an open question; that liver, however, would appear to be the structure in which it is most collected when the administration is slow and in small doses; and that the

elimination of the poison is attempted by all the secreting surfaces.

12. That in rapid poisoning the fatal effect seems due to direct chemical change in the blood, and an indirect effect therefrom on the heart; while in slow poisoning there is superadded an interference with the assimilative powers, the result of the lesions excited in the stomach or other parts of the alimentary canal.

Dr. Ogier Ward said, it had been stated that in cases of antimonial poisoning ulcerations had been found in the intestines, like the pustules of small-pox; but to these the author had made no reference.

Mr. Rogers Harrison said, if such small doses would kill a dog, it would seem that the large doses often given to human subjects must be extremely dangerous. But antimony might affect different species in a different manner; and he could wish that Dr. Richardson had extended his experiments to other animals than dogs. It had been stated that pigs fattened on antimony.

Mr. Rogers said, he had observed, in experiments that he had performed, that the stomachs of dogs were peculiarly sensitive to the action of medicines.

Dr. Webster alluded to some curious experiments of Orfila. He injected solution of tartarized antimony into the veins of dogs, and he found that if he cut the eighth nerve, the poisonous effect was delayed; if he cut one of the pneumogastric nerves, it was further delayed, and still more so when he cut both of the pneumogastric nerves; while by cutting the œsophagus the effect was accelerated. He (Dr. Webster) had seen tartarized antimony given beneficially every two or three hours for days consecutively without producing any vomiting. With regard to ulceration, Hoffmann had recorded a case of death from tartar emetic in which the body was found to be ulcerated and gangrenous. The smallest quantity he had heard of as producing death was 10 grains, in the case of a child. A case was on record in which a patient recovered after taking 6 drachms.

Dr. Rogers asked whether Dr. Richardson had examined the urine in the dogs which he had dissected. In some cases, he said, diuretics had been given to eliminate the poison from the system. Antimonial poisoning, he believed, produced inflammation of the lungs. It could hardly be expected that the lungs would escape when the other organs were so extensively involved. The case mentioned by Hoffmann as showing ulceration and gangrene was, he believed, generally discredited.

Dr. Snow believed that the reason why very large doses of antimony did not always produce injurious effects was, that they were generally vomited. In considering the comparative effects of antimony on different animals, the fairest way was to judge by their weight. Thus, if a dog weighing 14 pounds was killed by 24 grains, a man weighing 140 pounds would probably be killed by 240 grains—a far larger dose than was ever prescribed. Antimony given in full doses no doubt required to be carefully watched, not only for the purging and vomiting, but for the depression, which it produced. He thought it probable that the supposed gangrene produced by antimony was only extreme congestion, a similar mistake having sometimes been made in cases of intus-susception. Antimonial ointment in cases of phthisis produced great depression and restlessness; and some of his (Dr. Snow's) patients had, on that account, discontinued it.

Dr. Webster, in reply to Dr. Snow, said, that very large doses of antimony seldom produced vomiting.

Mr. Milton had given antimony, in doses varying from half-a-grain to a grain, every two or three hours, to allay inflammation in abscesses, chancres, etc. It produced no purging, but exercised great control over the inflammation of the cellular tissue.

Dr. Thudichum said, the first person who produced antimony in a pure condition was Hadrian de Minsycht, in 1631. In the experiment alluded to by Dr. Richardson, as performed by Dr. Barker and himself (Dr. Thudichum), a scruple of tartar emetic in 3 drachms of water warmed to blood heat was injected into the right jugular vein. The dog immediately lay down; the respiration became slow; the beating of the heart was slow, and there were irregular contractions of the diaphragm during inspiration. The pupil was so much dilated that it disappeared. He believed that in cases of poisoning both by aconitina and antimony the pupil was first contracted and afterwards dilated. As a remedy, he believed antimony was the very worst in the Pharmacopœia.

Dr. E. Smith did not consider, with Dr. Snow, that the depression felt by phthisical patients was owing to the absorption of antimonial ointment, but that it was attributable to other causes.

The author having replied, the Society adjourned.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged for space to inform your readers that Officers from 208 Unions have joined the Poor-Law Medical Reform Association, and that arrangements are now in progress for a Public Meeting, to be held in London the latter end of this month, which will be duly advertised. In the meantime, I trust those who are still taking time to deliberate, will speedily come to a decision, and unite with us in our determination to lay our grievances before the Legislature, and to seek justice for the most useful, the hardest worked, and (I hope) the worst paid class of men in Her Majesty's dominions. I am, &c. Richard Griffin.

12, Royal-terrace, Weymouth, May 5, 1856.

Salford.—At a meeting of the Medical Officers of the Salford Union, held April 29, 1856. The following Resolutions were unanimously agreed to:—1. That the members of this meeting agree generally in the views advanced by Mr. Griffin in improving the interests of the Union Surgeons, and will endeavour to promote those views. 2. That the remuneration which has hitherto been awarded is altogether incommensurate with the duties they are called upon to perform. 3. That this meeting is willing to support any reasonable measures having for their object the improvement of the position of the Union Surgeons. 4. That each Medical Officer of this Union subscribe 5s., to be transmitted to Mr. Griffin, towards expenses already incurred. 5. That the thanks of this meeting be tendered to Mr. Griffin, of Weymouth, for his exertions in the cause of Union Medical Officers. 6. That the above Resolutions be communicated to Mr. Griffin, and forwarded to the Medical Journals. Thomas F. Brownbill, Joseph Teale, Mark Oliver Larmuth, James Ashburner.

Stamford.—J. Kelley, F. Southam, and J. M. Heward, Esqrs., Medical Officers of the Stamford Union, resolve, by written communications to the Local Secretary,—1. That they approve generally, without pledging themselves to details, of the movement made by Mr. Griffin in the cause of Poor-Law Medical Reform. 2. That they tender their best thanks to him for his great exertions in trying to improve their position. 3. That they have each subscribed five shillings to defray all necessary and incidental expenses, to be repeated as occasion may require. 4. That Mr. Heward be Treasurer and Local Secretary. 5. That a copy of these resolutions be forwarded to Mr. Griffin and the weekly Medical Journals.—J. M. Heward, Hon. Sec.

Bridgewater, Somerset.—At a meeting of the Medical Officers of the Bridgewater Union, held at the Clarence Hotel, it was unanimously resolved:—1. That the cordial thanks of this meeting be tendered to Mr. Griffin, for his exertions on behalf of Poor-Law Medical Reform. 2. That the present meeting agrees to subscribe 5s. each towards defraying the expenses incurred by Mr. Griffin in advocating the present movement. 3. That we agree as to the insufficiency and inequality of our present remuneration; and as Parliament has sanctioned a per-case system, and the Poor-Law Commissioners have recommended 6s. or 6s. 6d. to be the minimum rate of payment per case; and finding that the Boards of Guardians have not acted upon this order, we are of opinion that Parliament should be petitioned for its enactment. 4. That Medical Officers should be paid out of the Consolidated Fund. 5. That orders for Medical relief should not be left to the judgment or caprice of a Relieving Officer, to give or to withhold the same; and that Medical inspection would be advantageous to the public and the Profession. 6. That a deputation from the Bridgewater Union do attend a general meeting of the Profession when required.

Swansea.—A meeting of the Medical Officers of the Swansea Union was held at Swansea, on Thursday, May 1, 1856.

Present—Mr. John Cook, Mr. Thomas A. Essery and Mr. Thomas M. Jones. Dr. Justice, the Medical Officer of the Gower District, residing a considerable distance from Swansea, was unable to attend, but a letter accompanied with his subscription, and expressing his concurrence in the objects of the meeting, was subsequently received from him. The following Resolutions were adopted :—1. That this meeting tenders its best thanks to R. Griffin Esq., for his great exertions in behalf of the Poor-Law Medical Officers, and pledges itself to co-operate with him in his praiseworthy efforts to effect a melioration of their positions. 2. That it is the opinion of this meeting that in adopting any principle of remuneration it is imperatively necessary that the area and population of the districts be taken into due consideration. 3. That the Medical Officers of Union Workhouses should be paid the same fees for operations, and extra services performed therein, as are allowed to District Medical Officers. 4. That Mr. Cook be appointed Local Secretary and Treasurer, and that a subscription of 5s. quarterly be paid by each member to defray incidental expenses. 5. That a copy of these Resolutions be sent to Mr. Griffin and to each of the Journals.

THE COLLEGE OF PHYSICIANS AND MEDICAL REFORM.

To the Right Hon. W. F. Cowper, M.P., and the other Members of the Select Committee to which the Medical Bills have been referred.

The President and Committee of the Royal College of Physicians having been informed that a Bill, entitled "A Bill for Regulating and Improving the Medical Profession," and ordered by the House of Commons to be printed, 7th April, 1856, has been referred to a Select Committee, trust they may be permitted to state respectfully the strong objections entertained by the College of Physicians to this Bill, as being, not only exceedingly unjust to the College, but sure to be injurious, in many ways, to the Profession and the public.

The means by which it is proposed in this Bill to *regulate* and *improve* the Profession are twofold,—first, by fixing the amount of Medical qualification, without which no person shall be permitted to enter upon Medical practice; and, secondly, by effecting a general registration of qualified Practitioners. But the manner in which it is proposed that these measures shall be carried out would, in the opinion of the College, introduce worse evils than any which now exist.

For the standard of qualification, and of age, to be fixed under Clause 8, being necessarily a minimum standard, not only would no inducement be held out to any one to aim at higher qualifications; but those inducements, which have been in force hitherto, would be, to a considerable extent, destroyed by this Bill, which grants, for the first time, perfect equality to all licences and diplomas, however different the amount of time, and study, and expense necessary for their acquirement, and consequently represented by them. Thus would the licences and examination of Bodies, consisting of members of one branch of the Profession only, as, for example, those of the two last bodies in Schedule B—viz., the Apothecaries' Society of London and the Company of Apocaries of Ireland—be rendered valid for practising, not merely as Apothecaries, but as Surgeons and as Physicians, which would be manifestly unfair to Physicians and Surgeons, and inexpedient, if not unsafe, as regards the community.

Again, as to the number of Bodies which grant diplomas and licences, nothing has created greater confusion in the Profession, or tended more to deteriorate Medical education, than the large number of Bodies possessing or assuming this right; an evil which, so far from being abated, would be even increased by this Bill; for it extends this right to other Bodies, which have it not, or have not exercised it; and would admit as qualifying for practice even, as already stated, in every branch of the Profession, the licences of Bodies which, if they have the means of teaching and examining in any branch, certainly have it not in all.

The manner in which registration is appointed to be conducted under this Bill is objectionable, because no distinction is made between the different classes in the Profession. And with what show of justice can those who are already legal Practitioners be called upon, by Clause 20, to pay a considerable sum for registration, which could be to them of little service? Indeed, to those to whom some superiority of rank has hitherto been conceded, on account of their superior education, such registration would be positively injurious.

In any case, those who are already legally qualified ought not to be taxed for registration so highly as those who, being as yet unqualified, will hereafter enter the Profession. Again, the imposition of an annual payment, however small, for renewed registration is vexatious and unnecessary.

By this Bill, a large and highly paid Council would be constituted for the sole purpose of enforcing a minimum standard of Medical qualification. But it would be wholly powerless to keep the qualifications of superior grades of the Profession up to a higher standard, or to produce in them uniformity of qualification.

Meanwhile, it is to be feared that the right to be given, by Clause 12, to the Council, and to *any* registered Practitioner, of access to all examinations, and of accompanying Students to Hospitals and Infirmaries, would be productive of much inconvenience, and would be repugnant to English notions of order and propriety.

The College protests most strongly against the repeal, by Schedule A., of the 14th and 15th Henry VIII., c. 5, of the second section of the 32nd Henry VIII., c. 40, and of the fifth section of 1st Mary, Sess. 2, c. 9; for by such repeal the College would be deprived summarily of its charter and of all the privileges and powers which it has enjoyed and exercised—as it believes for the public good—during upwards of three hundred years!

For the reasons which have been stated, and others that might be adduced, it appears to the College that this Bill, introduced professedly "for Regulating and Improving the Medical Profession," would have the effect of increasing the disorders by which the Profession has long been harassed, and of lowering the standard of Medical education.

The Medical Profession Bill, introduced by Mr. Headlam, "To Alter and Amend the Laws regulating the Medical Profession," the College considers to be founded on far better principles; and has presented accordingly to the House of Commons an earnest petition that, after it has been amended in some of its details, this Bill may be passed; for it preserves the distinction of three orders in the Profession—Physicians, Surgeons, and General Practitioners;—which distinction is recognized and accepted by the public, and has been, in fact, produced by the wants of society: and it further requires that the members of each of these orders shall be duly and appropriately examined by a College of Physicians, or a College of Surgeons, or a joint Board of Physicians and of Surgeons in general practice. A practical examination of this kind ought always to be superadded to general examinations, even in the case of Graduates of Universities; because the proper business of Universities is to superintend, and test, and reward with due distinctions and titles, the general education of students, whose competency for actual practice ought to be further ascertained by a College of Physicians or of Surgeons. The Colleges were founded expressly for this duty: and it would be easy to show that such an arrangement is the best for the interests and protection of the public. Thus, to constitute Physicians, the ordinary requisites should be a university education, and subsequently a practical examination by a College of Physicians. Nevertheless, some provision should be made for the admission into the order of Physicians of a small number of persons of eminent character and ability, who, though they may not have enjoyed the advantage of a university education, may in after life have established a strong claim to such a distinction by long experience or by scientific acquirements.

As, however, the general education of the numerous class of Medical Students, who are unable to study and graduate at a University, requires to be encouraged and as far as possible improved, this important object is very properly provided for in Mr. Headlam's Bill (Clause 19), by the institution of a preliminary examination to be passed by all who are not graduates of any University.

The College of Physicians has always been desirous that perfect reciprocity of practice should be established among members of the same order of the Profession in the three kingdoms, provided that a sufficient uniformity of qualification, in each order respectively, be first secured. To render this point secure, a Council or central authority is necessary, to which just so much power should be entrusted as would suffice to enforce the requisite uniformity of qualification.

The College is decidedly of opinion that the Medical Council should not be very numerous, and that the members of it should be appointed by the Crown.

In the registration of legally qualified Practitioners, care should be taken that the recognized distinction of classes be sufficiently marked. Otherwise the existing inducements to seek the best and highest education will be diminished. In no case, and at no time, whether at first or hereafter, should any one be registered as a Physician who is engaged in pharmacy, that is, who derives profit from the sale of medicines.

The College is further anxious that Physicians should not have their social position lowered by having the power given to them of recovering charges.

The College approves especially of the enactment in this Bill, Clause 28, that all Practitioners hereafter shall be enrolled in the College of Physicians, or the College of Surgeons of the country in which they practise. For such an arrangement it holds to be highly conducive, indeed indispensable, to good order and discipline and moral control in the Profession. And if the requisite uniformity of qualification, in the different orders respectively, has been secured, the transference, on change of residence, from the College of one country to the corresponding College of another, without the necessity of fresh examination, will be easily arranged and readily granted.

Finally, the College desires, and has petitioned, that a short Act may be passed to enable the Crown to grant to the College of Physicians of London a New Charter, which may harmonize with the provisions of the Medical Profession Bill, amended, as indicated in the foregoing remarks. A New Charter is absolutely necessary to the College to enable it to improve its internal constitution, to abolish the obsolete distinction between Licences and Extra-Licences, and to discharge, with credit to itself and benefit to the public, the important duties already committed to it by the Legislature, and those which would be committed to it by the Bill for altering and amending the laws regulating the Medical Profession.

John Ayrton Paris, President.
Francis Hawkins, Registrar.

College of Physicians, London, April 23, 1856.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the army in the Crimea, in forwarding his Return of Sick of the Army for the week ending April 7, states,—

The sanitary condition of the army is very satisfactory, and no disease of any marked or peculiar character exists in any of the Divisions.

Chest affections continue to be of frequent occurrence, and this must be looked for until mild weather sets in, and then fevers will in all probability replace them.

As yet winter cannot be said to have ended, for, on the 3rd inst., one of the most furious snow-storms occurred that has been experienced during the whole winter. It commenced about eight in the morning and continued until after mid-day.

The 3rd Division, which was out on route parade marching exercise was overtaken by it, and experienced its full violence. Several men suffered from its effects, and a young lad of the 44th Regiment died of cold and exhaustion.

The ratio of sick has not increased this week, but its distribution is altered in consequence of the Batteries of Artillery and Battalions of Land Transport attached to Divisions being returned with their respective Divisions instead of being returned as separate corps, as they have hitherto been.

The general health of the Land Transport Corps continues gradually to improve, and, in addition to the decrease of numbers in the Head Quarter Hospital Returns from transfers to Divisions, the mortality is less, and the form of fever now prevailing among the men much milder than it has been.

The Hospital Establishment has benefited in common with the rest of the corps; more huts have been built, the drunken, negligent Regimental Hospital Orderlies have been replaced by men from the Medical Staff Corps, and, within the last week six nurses, under the superintendence of Mrs. Stewart, have been added to the orderlies.

Of the 17 deaths which occurred during the week 8 were from fever; 2 from apoplexy, the result of intemperance; 3 from diseases of the lungs; 1 from the effects of frostbite; 2 from injuries (a man of the 11th Hussars, who was thrown from his horse, and another, a man of the Land Transport Corps, over whose head a cartwheel passed;) the 17th man belonged to the Army Works Corps, and is returned as having died of gangrene.

The ratio of admissions to strength this week has been 2·32 per cent.

Deaths to strength 0·02 per cent.; sick to well 3·98 per cent.; all of which is remarkably low, much lower than can reasonably be expected to continue as the spring advances.

HOMŒOPATHY.

The following correspondence has appeared in the *Torquay Directory*:—

Sir,—In some correspondence which has recently appeared anonymously in your paper, signed "A Convert to Homœopathy," (in the paper of April 23,) and "M.D.," (in the paper of April 30,) it is attempted to be shown, that Homœopathy can lay claim to some support from Sir Benjamin Brodie, Bart., and from Sir John Forbes, M.D.

I have no wish to discuss such a subject as Homœopathy in a popular Journal; but, as it seems desirable that the public should not be misled respecting the real opinion of men so eminent in the ranks of Rational Medicine as the two referred to, I append two letters which will speak for themselves.

I am, your obedient servant,
C. Radclyffe Hall, M.D.

Plymswood, Torquay, May 5, 1856.

14, Savile Row, May 3rd, 1856.

My dear Sir,—If you wish to know my opinion of what they call homœopathy you need only refer to an article which I wrote some years ago for the *Quarterly Review*, and which appeared in the 141st number of that journal (December, 1842). No one who has taken the pains to inquire into the subject can doubt that it is a mere imposture, which some day or other will disappear, but only to be succeeded by some other imposture equally absurd.

That the public should be thus imposed upon is not perhaps much to be wondered at, if we bear in mind, first, that every sick person wishes to recover, but that our art cannot cure everybody; secondly, that, in a great number of instances, patients will recover of their complaints by a natural process, without any treatment at all, and that under these last-mentioned circumstances any remedy that is administered may obtain the credit of having effected the cure. Allow me to add, that the delusion as to homœopathy would, I doubt not, have vanished long ago if it had not been for the clamour raised against it by the Medical Profession,—a clamour which has (not unnaturally) been attributed to jealousy, and which has given it a notoriety which it could never have obtained otherwise. It is absurd to argue gravely against such nonsense as this really is; and our brethren would have acted more discreetly if they had let it take its course and never made it a subject of serious discussion.

As to any penal enactments to prevent homœopaths or any other irregular practitioners from interfering with the Medical Profession in their private practice, the thing is altogether out of the question; and, indeed, I can conceive nothing that could be more detrimental to the Profession itself than to be bolstered up by an Act of Parliament, instead of having to depend solely on the skill, character, and conduct of its members. I am, dear Sir, yours truly,

To Dr. Radclyffe Hall, Torquay. B. C. Brodie.

12, Old Burlington Street, May 2nd, 1856.

My dear Sir,—I am much obliged to you for calling my attention to the paragraph in the *Torquay Journal* of April 30th in which I am represented as a favourer of homœopathy. If the quotation there given be copied correctly from any of my writings, I must plead guilty to having used the expression "cured homœopathically" in a loose and equivocal manner. If, as more accurately expressing my meaning, the words "get well under homœopathic treatment" be substituted for that expression, I abide by the statement there given.

Every reference made by me to Homœopathy, in any of my writings, has had for its object to show the power of Nature

to cure many diseases, both slight and severe, without any aid from Art; believing, as I have always believed and still believe, that homœopathic treatment is utterly impotent, and consequently, that the beneficial results obtained under it, are entirely due to Nature, I have always referred to the "Cures" of the Homœopaths as unequivocal proofs that the diseases treated according to their method were cured by Nature.

It is of little moment to the Profession or the public, what my opinion of Homœopathy, as a code of Medical principles and a system of therapeutics may be; but all those who have read what I have written on the subject, must be well aware that I have ever regarded it as one of the greatest—though certainly not the most injurious—of the many delusions that have dishonoured Medical science since its origin.

Believe me, my dear Sir, yours faithfully,

To Dr. Radclyffe Hall, Torquay. JOHN FORBES.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on April 25 :—

COOKSON, HENRY, Royal Navy.
GUNNING, JOHN EDMUND, Trafalgar-square, Brompton.
HEWAT, WILLIAM SHILLINGLAW, Guelph, Upper Canada.
PINYON, PETER, Norwich.
PLATT, JAMES, Dukinfield, Cheshire.
ROBERTS, EVAN, Garn Dolbenmaen, Carnarvonshire.
SEWARD, CHARLES, Petersfield, Hants.
TANNER, WILLIAM, Army.
TICKLER, ROBERT PRESTON, High-street, Bow.

The following gentlemen were admitted members on April 28 :—

CHESTER, ARTHUR, Gloucester-place, Portman-square.
DESVIGNES, PETER HUBERT, Constantinople.
GUTTERIDGE, EDWIN PARKER, Brighton.
HAWKINS, BENJAMIN LAWRENCE, Army.
HAYES, ROBERT MURRAY ORMSTON, Army.
IRWIN, JOHN, Whitehaven, Cumberland.
MEAD, ELISHA PRESTON, Whitby, Yorkshire.
NICHOLLS, LUCIUS, Twickenham.
RILEY, JOSEPH, Oldham.
SKINNER, WILLIAM ALFRED, Belmont, Bath.
WILLIAMS, WILLIAM, Kidwelly, Carmarthenshire.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 1, 1856 :—

DAVIES, EDWARD, Wrexham, North Wales.
HOOPER, J. H., York House, West-square, Southwark.
JONES, JOHN, Swansea.
MANTELL, RINERS, Bitton, Bristol.
PARSONAGE, EDWIN, Wrexham, North Wales.
RENSHAW, HERBERT SMITH, Ashton-upon-Mersey.
SIDDALL, GEORGE OLDHAM, Chesterfield.
YOUNG, JOSEPH, Ramsgate.

APPOINTMENTS.

M. ALQUIÉ, long known as the efficient director of the Military Medical School at Val-de-Grâce, has been appointed to the lucrative post of Inspector of Mineral waters at Vichy, vacant by the death of M. Petit.

DR. MICHAEL LÉVY has been nominated, by the Minister of War, Director of the Military Hospital and School of the Val de-Grâce, in the room of Dr. Alquié, resigned.

DR. CHARLES SLOAN, of Ayr, has been appointed a Justice of the Peace for the county of Ayr, by the new Commission of the Peace which has just been obtained by the Lord-Lieutenant.

DEATHS.

HAMILTON.—May 6, at Edinburgh, Sir William Hamilton, Bart., Professor of Logic and Metaphysics in the University of Edinburgh.

LITTLEPAGE.—April 21, in the Island of Trinidad, West Indies, aged 45, Dr. Alexander Williams Littlepage, M.R.C.S.E.

MONTGOMERIE.—March 21, at Calcutta, Dr. William Montgomerie, Superintending Surgeon of the Barrackpore Division, deeply regetted.

PEREGRINE.—April 27, at St. Saviour's-crescent, Jersey, aged 73, John Pryor Peregrine, M.D., late of Halfmoon-street, Piccadilly, sincerely and deservedly regretted by a numerous circle. M.D. Erlangen; M.R.C.S.E. 1803; M.S.A. 1809; formerly Assistant-Surgeon to the Royal Horse Artillery.

SANDRAS.—April 24, at Paris, Dr. Sandras, Physician to the Hôtel Dieu. Among other publications, Dr. Sandras was the author of a well-known treatise on Nervous Diseases, of which a second edition was about to appear. Seized with the symptoms of fever, while visiting his patients at the Hôtel Dieu, he obstinately resisted all treatment, and was carried off by a supervening cerebral affection.

BEQUEST.

MR. FRYER, OF BEWDLEY, has bequeathed the handsome sum of £1000, free of duty, to the Birmingham Medical Benevolent Society.

UNIVERSITY OF LONDON.—The annual general meeting of the graduates of this University took place on Wednesday, at the Freemasons' Tavern, Mr. T. S. Osler, LL.B., in the chair. The report stated that a letter had been received from the Home Secretary, on certain privileges claimed by the graduates, one of them being the admission of their body into the Senate. Upon this point Sir George Grey said that, in the event of a new charter being issued, he should propose that a clause be inserted in it providing that every alternate vacancy in the Senate should henceforth be filled up by the Crown with a graduate of the University, until the number of graduates in the Senate should amount to one-fourth of the total number; and he should further propose that every such graduate should be selected from a list of five graduates to be chosen by the graduates at large. In reference to Mr. Headlam's Medical Reform Bill, the report went on to say that it was proposed to compel all future graduates in medicine to pass examinations before the College of Physicians or the College of Surgeons. The committee, feeling that the adoption of such a system would strike a fatal blow at the *prestige* of their University, as the most rigid and efficient examining body in existence, had procured the signature and presentation of numerous petitions; and the result had been, that Mr. Headlam's Bill, and another Bill brought in by Lord Elcho, were now in the hands of a select committee. Some discussion took place upon this question, and a general feeling was expressed against Mr. Headlam's Bill.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the Annual Meeting, on Thursday, May 1, the Duke of Northumberland, K.G., F.R.S., President, in the chair, the annual report of the Committee of Visitors was read and adopted. It states that the account of expenditure for 1855 has been duly examined, and the several items thereof compared with the vouchers; and that the receipts continue in a satisfactory state, the annual contributions being equal to those of 1854, and superior to any former year; while the compositions received from members, in lieu of future annual payments, have been above the average number. The surplus income beyond the expenditure has enabled the managers to invest £600 in the purchase of stock, besides the usual annual additions to the accumulating funds of the Institution; and the property of the Royal Institution, including the house and furniture, the library, etc., and the sums invested in the public funds, now amounts to about £50,000. The presence of his Royal Highness Prince Albert on several occasions, and of the Prince of Wales and Prince Alfred at the whole of the juvenile course of 1855-56, was adverted to. A list of books presented accompanies the report, amounting in number to 300 volumes, and making a total, with those purchased by the Managers and patrons, of 743 volumes (including periodicals) added to the library in the year. Thanks were voted to the President, Treasurer, and Secretary, to the Committees of Managers and Visitors, and to Professor Faraday, for their services to the Institution during the past year. The following gentlemen were unanimously elected as Officers for the ensuing year: — *President* — The Duke of Northumberland, K.G., F.R.S.; *Treasurer* — William Pole, Esq., M.A., F.R.S.;

Secretary—Rev. John Barlow, M.A., F.R.S. *Managers*—William H. Blaauw, Esq., M.A., F.S.A.; Sir Benjamin Collins Brodie, Bart., D.C.L., V.P.R.S.; Thomas Davidson, Esq.; Warren De la Rue, Esq., Ph.D., F.R.S.; George Dodd, Esq., F.S.A.; Sir Charles Fellows; W. R. Grove, Esq., M.A., Q.C., F.R.S.; Lieutenant-Colonel F. Vernon Harcourt, M.P.; Henry Bence Jones, M.D., F.R.S.; George Macilwain, Esq.; Sir Roderick I. Murchison, G.C.S., D.C.L., F.R.S.; Frederick Pollock, Esq., M.A.; Joseph William Thrupp, Esq.; Sir James Shaw Willes, Justice of the Common Pleas; Colonel Philip James Yorke, F.R.S. *Visitors*—Francis Bayley, Esq.; John Charles Burgoyne, Esq.; John Robert F. Burnett, Esq.; Hugh W. Diamond, M.D., F.S.A.; Gordon W. J. Gyll, Esq.; Thomas Henry, Esq.; John Hicks, Esq.; John Holdship, Esq., M.A.; R. Reginald I. Morley, Esq.; Thomas N. R. Morson, Esq.; The Viscount Ranelagh; Joseph Skey, M.D.; Rev. William Taylor, F.R.S.; Hensleigh Wedgwood, Esq., M.A.; Thomas Young, Esq.

King's College Hospital.—On Thursday night the Anniversary Festival of the King's College Hospital was held in the London Tavern. About 200 gentlemen partook of the sumptuous entertainment provided. The Earl of Harrowby presided. The Chairman, in announcing the toast of the evening, said:—"During the last year 12,333 in-door patients, and 23,114 out-door patients had been relieved. (Hear, hear.) The entire expense of the new Hospital would be about £50,000. The annual subscriptions amounted to £1500; and about £3500 more had to be made up by voluntary contributions, in order to meet the current expenses. Remembering what had already been accomplished, he did not think the friends of the institution could tremble at the prospect of having to raise the large sum of money which was now required." It was here announced that the Chairman had subscribed £50; Mr. Alderman Copeland, £52 10s.; the Grocer's Company, £52 10s.; the Drapers' Company, £52 10s.; Lord Radstock, £20. There was a large number of other subscriptions.

School of Anatomy and Medicine, 1, Grosvenor Place, adjoining St. George's Hospital.—On Friday, May 2, the Annual Prize Meeting took place. The Right Hon. the Lord Mayor had promised to preside; but his Lordship was unexpectedly detained in the chair of the Common Council; in transmitting his excuses he offered gold and silver medal prizes for general proficiency and good conduct. Dr. Bampfylde Daniel was called to the chair, and the report read. It referred to the striking success which had attended the school during the past year. The number of pupils had much increased. New courses of lectures had been introduced, suited to the advanced state of modern Medical science; such were the able courses of Dr. Headlam Greenhow, on Hygiene, (which he would this year repeat at St. Thomas's, this subject being left now to Dr. Richardson, Editor of the *Journal of Public Health*,) of Dr. Thudichum on Natural Philosophy; Mr. Adams on Orthopædic Surgery; Mr. Hulme on Comparative Anatomy and Zoology; Dr. Richardson on Pathological Anatomy. In the Anatomical Department, on which the former reputation of the school mainly rested, the most approved elements in the Continental and English systems had been combined under the able management of Dr. Deville, warmly aided by Mr. Ernest A. Hart. Demonstration was here the sole basis of instruction, and nothing was spoken of which was not displayed by special preparation. The system of daily repetition, and of weekly examination, had been enforced. It was submitted that the introduction of this system, formed an era in the Anatomical teaching of this country. Dr. Deville's demonstrations of Operative Surgery had been held to be of unique excellence, and were entirely new in this country. The predicted difficulty in obtaining subjects had proved visionary. This class had been largely attended by Officers and Practitioners, as well as Students from various quarters. It had attracted high official attention, and the certificate of attendance met with flattering consideration. The great feature of all the teaching of this School was, its essentially practical and tutorial character. Prizes were awarded as follows:—*Medical Jurisprudence:* Mr. E. W. Jollye; 2nd prize, Mr. J. J. Pope; Certificate, Mr. R. W. Clifton; Lecturer's Prize, Mr. F. G. Constant. *Botany:* Mr. J. J. Pope. *Practical Chemistry:* Mr. E. W. Jollye. *Midwifery:* Senior Prize, Mr. F. G. Constant; Junior Prize, Mr. R. W. Clifton; Certificate, Mr. J. J. Pope. *Materia Medica:* Prize, Mr. H. Bannister; Certificate, Mr. J. J. Pope. *Senior Anatomy:* Gold Medal, Mr. E. W. Jollye; Silver Medal, Mr. F. G. Constant; Certificate, Mr. H. Bannister. *Junior Anatomy:* Bronze Medal, Mr. J. Adsetts; Certificates, Mr. P. O. Mayor, Mr. E. W. Cooke. *Chemistry:* Prize, Mr. E. W. Cooke; Certificate, Mr. J. Adsetts. *Medicine:* Prize, Mr. H. Bannister. *Surgery:* Prize, Mr. H. Bannister; Certificate, Mr. J. J. Pope. *Physiology:* Silver Medal, Mr. E. W. Jollye. *Clinical Surgery:* Mr. J. J. Pope. *Clinical Medicine:* Mr. H. Bannister. Dr. Lankester, then, in the name of the Committee of Lecturers, presented to Mr. Ernest Hart, the Demonstrator of Anatomy, a silver inkstand, with many warm expressions of appreciation, of the remarkable energy and talent which he had devoted to the service of the School. The proceedings terminated with a vote of thanks from the Students to the Lecturer, and from the meeting to the able Chairman.

Surrey Dispensary.—On Wednesday evening the 79th anniversary dinner of this charity was held at the Bridge-house Hotel; Admiral Sir C. Napier, M.P., was in the chair. The number of patients admitted with letters of recommendation during the year 1855 was 5528; of that number 4963 were cured or relieved, 1002 were visited at their own houses by the medical officers, and 370 were midwifery cases; there remaining 424 cases under care on the 1st of January, 1856.

Testimonial to Surgeon Charles O'Callaghan.—On April 21, the Deputation appointed to present to Surgeon O'Callaghan the Address and Testimonial of the people of Killarney, in acknowledgment of his distinguished services at the storming of the Great Redan, waited on that gentleman at his father's residence. The deputation comprised some of the leading Gentry, the Clergy, the Professional and Mercantile classes of the Town. The Address contained the following passage:—"If the meed of public approbation be by general assent awarded to the soldier who displays conspicuous valor against the enemy, how much more is it due to those who, amid the very heat and carnage of battle, evince heroic courage in succouring the wounded and dying among their countrymen. Such was the service performed by you in the fight before the Redan, on September 8, 1855, as has been testified in the despatch of Major Daubeney, of the 62nd Regiment, to Major-General Wyndham, bearing date October 22, 1855. The Testimonial consisted of a magnificent Etruscan vase, of solid silver, richly gilt and ornamented, weighing 93 ounces, together with a solid silver salver, richly chased, weighing 69 ounces.

At the Levee on Wednesday, the following were among the presentations in the general circle:—Dr. R.D.D. Allan, Dr. William Bell, Assistant-Surgeon Cates, Assistant-Surgeon H. Cholmeley, Surgeon A. Crocker, Dr. B. A. Kent, Dr. Kelkelly, Dr. A. M'Kechnie, Dr. W. Mudge, Assistant-Surgeon G. Nayler, Surgeon Newham, Surgeon H. Shirly, Dr D. Stuart, Surgeon Wagner.

Académie des Sciences.—In the section of Chemistry, in which a vacancy had been caused by the death of M. Braconnot, M. Gerhardt has been elected by 42 out of 51 votes.

Bureau Central des Hôpitaux.—M. Verneuil, as the result of the Concours, has been nominated Surgeon to the Bureau Central.

Mr. Pillischer's Microscopical Conversazione.—Mr. Pillischer who stands among the first-rate microscope makers of London, has recently opened a subscription microscopical room at his establishment, 88 New Bond Street, and on the occasion had, on Thursday week, a Conversazione which was very numerously attended. We observed there many members of the Profession, and others who have obtained distinguished positions as Microscopists, and who appeared to be, and expressed themselves as, highly gratified with the instuments and various objects exhibited. The object of Mr. Pillischer in opening the above room is to enable microscopists, for a very moderate sum, to obtain the use of the very best instruments with the most varied, complete, and modern appliances, while they may also have at their command an almost unlimited number of standard and test objects. Mr. Pillischer proposes to have his room open to the subscribers daily, and as the yearly subscription is fixed at half-a-guinea only, we feel assured that great numbers of our brethren and others will feel desirous of availing themselves of the many advantages which Mr. Pillischer's "Microscopical Room" offers them.

Worse than War.—On Wednesday an inquest was taken by Mr. Baker, at the Black Horse, Kingsland-road, on

the body of William Blake, a cabinet-maker, whose death took place from fever. Verdict, "That the deceased was found dead in a room in which were his wife and six children ill of fever, and in a house containing four rooms, in which resided twenty-five persons."

STATE OF THE PUBLIC HEALTH IN THE QUARTER ENDING MARCH.—The rate of mortality has been much lower in the first quarter of this year than it has been in any winter quarter since 1846. The rate is on an average in winter 2·525 per cent. per annum; in the past quarter it was only 2·186. The contrast between this rate of mortality and the rate of mortality in the winter of 1855 is striking; the rate was then 2·918. The deaths in the first three months of 1855 were 134,605; in the first three months of the present year 103,208, or less by 31,397 than the deaths in the previous winter. The deaths of Englishmen in the Crimea are not registered in England, otherwise the addition of their numbers would make the difference between the loss of life in the two winter quarters still greater. The high mortality of the army in the Crimea, as well as the low mortality on that distant coast, coincided with less intense but corresponding states of the nation at home. A difference in the degrees of heat and cold appears to have been the chief cause of the difference in the mortality in England. The mean temperature at Greenwich was 34·1° in the winter quarter of 1855, and 40·0° in the winter quarter of 1856. The mean temperature of the month of February, 1855, was 29·4° (2·6° below the freezing point of water), and the mean temperature of February, 1856, was 42·0°, or 10° above the freezing point of water. The fatality of every degree of cold below the freezing point to old people is now well established; but a mild winter is sometimes followed by an unhealthy autumn, against which our Health Officers should be watchfully on their guard. The average rate of mortality in the last ten winters has been 2·525 per cent. per annum in all England; but the rate in the town districts has been 2·745, and in the other districts 2·278 per cent. per annum. The rates of mortality in the winter of 1856 were much below these averages; the town rate was 2·387, the other rate 1·969, the rate for the country generally 2·186. The importance of these results is enhanced by the facts that the great increase of the population of England in the ten years after 1841 was found in 1851 to be lodged in the towns. The population of the large towns was 6,838,069 in 1841, and 8,247,017 in 1851. The question of the health of towns is therefore a question of the strength of England.

MORTALITY IN SCOTLAND.—The following are some particulars from the Return of the Births, Deaths, and Marriages registered in the eight principal towns of Scotland during the month of March:—There were registered in the eight principal towns of Scotland, 2792 births, of which 1444 were males, and 1348 females; 1878 deaths, of which 934 were males, and 944 females. Allowing for increase of population, this would give at the rate of one birth annually in every 25, and one death in every 37. Of the 1878 deaths in the eight towns, 863, or 46 per cent., were under five years of age. The proportion of deaths under five years of age in the different towns, was, in Aberdeen, 35 per cent. of the total mortality; in Greenock and Perth, each 37; Edinburgh, 43; Paisley, 44; Leith, 45; Glasgow, 48; and Dundee, 54. The deaths from the zymotic class of diseases amounted, in the eight towns, to 450, thus constituting 24 per cent. of the total mortality; but the presence or absence of fatal epidemics caused this proportion to vary greatly in the different towns. Thus, only 17 per cent. of the total deaths resulted from diseases of this class in Perth; in Paisley and Greenock the proportion was 19 per cent.; in Edinburgh, 21; in Glasgow and Aberdeen, each 23; in Leith, from the prevalence of scarlet fever, the proportion rose to 29; while in Dundee, small-pox raised the proportion to 34 per cent. of the total deaths. The close connexion between the mean temperature and the mortality has been again witnessed during March. The mean temperature of February and March was nearly the same, viz., about 40°, and the mortality of the two months differs only by 7. Exactly the same number of deaths from diseases of the respiratory organs (excluding consumption), viz., 266, occurred in the eight towns during February and March; but the greater range of temperature, together with the noxious influence of the east winds, increased the deaths from consumption from 223, which they were in February, to 260 during March, a difference greater than can be accounted for by the two additional days in March. The prevalence of bronchitic affections among the consumptive during March, clearly traceable to the influence of the weather, accounts for this increased fatality during that month.

MORTALITY NOTABILIA.—The deaths registered in London, which in the previous week were 1048, rose last week to 1087. In the ten weeks corresponding to last week of the years 1846-55, the average number of deaths was 1020, which, if raised proportionally to increase of population, becomes 1122. The rate of mortality is, therefore, still below the average. Of 201 deaths in this return which resulted from diseases of the zymotic class, 64 were produced by typhus and common fever.

BIRTHS.—The births of 901 boys and 806 girls, 1707 children, were registered—average, 1536.

METEOROLOGY.—The mean height of the barometer in the week was 29·564 in. The highest reading was 29.97 in. which occurred on Saturday. The mean temperature of the week was 41·3°, which is 9·1° below the average of the same week in 38 years; that of the previous week was 48·5°. The mean temperature was below the average on every day, the amount of depression varying in the week from about 6° to 11°. The highest reading of the thermometer in the shade was 53·4° on Wednesday; the lowest occurred on the previous day, and was 31°. The thermometer in the sun did not attain more than 77°. The mean dew-point temperature was 35·1°, and the difference between this and the mean air temperature was 6·2°. The temperature of the Thames fell from 54·9, the highest on Monday, to 48·8°, the lowest on Saturday; the mean of the weak was 51·5°. Wind north-west. Rain 0·75 in. Horizontal movement of air 715 miles; electricity, variable.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	5	3	8	4	11
North	490,396	4	9	6	6	2	16
Central ..	393,256	2	6	4	8	..	9
East.....	485,522	1	2	5	4	..	14
South	616,635	1	3	9	13	4	14
Total..	2,362,236	8	25	27	39	10	64

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, May 3, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, May 3, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	° 41·3						° 47·8
ALL CAUSES	1087	508	187	178	170	32	1020·1
SPECIFIED CAUSES	1073	507	187	177	170	32	1012·2
DISEASES:—							
1. Zymotic Class	201	139	30	19	13	..	211·8
2. Dropsy, Cancer, and others of uncertain seat	47	3	11	17	14	2	43·2
3. Tubercular Class	219	77	82	53	7	..	196·1
4. Of Brain, Nerves, etc. ..	107	49	10	20	23	5	121·3
5. Of Heart, etc.	53	5	9	17	20	2	40·0
6. Of Respiratory Organs ..	174	96	10	30	32	6	175·2
7. Of Digestive Organs ..	70	29	13	12	16	..	57·8
8. Of Kidneys, etc.	13	2	4	3	4	..	10·9
9. Of Uterus; viz. — Puerperal Disease, etc. ..	5	..	5	..	..	..	8·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	11	..	6	1	4	..	8·8
11. Of Skin, etc.	3	1	1	1	..	..	2·2
12. Malformations	5	5	..	..	..	..	3·4
13. Debility from Premature Birth, etc.	38	38	..	..	..	..	24·2
14. Atrophy	40	38	..	..	2	..	25·7
15. Age	45	..	..	..	28	17	44·2
16. Sudden	9	5	2	..	2	..	7·9
17. Violence, Privation, etc...	33	20	4	4	5	..	31·0
CAUSES NOT SPECIFIED.. ..	14	1	..	1	..	..	7·6

DEATHS IN PUBLIC INSTITUTIONS for the Week ending May 3:—

	Males.	Females.	Total.
Workhouses	58	47	105
Prisons	..	..	..
Military and Naval Asylums ..	7	..	7
General Hospitals	55	17	72
Hospitals for Special Diseases ..	7	6	13
Lying-in Hospitals	..	1	1
Military and Naval Hospitals ..	8	..	8
Hospitals for Foreigners, etc. ..	..	..	..
Lunatic Asylums	6	5	11

BOOKS RECEIVED.

The Edinburgh Medical Journal. May. 1856.
The Pharmacentical Journal. May. 1856.
Simpson's Obstetric Works. Edited by Priestley and Storer. Vol. II. Edinburgh: Adam and Charles Black. 1856.
Flint on the Respiratory Organs. Philadelphia. 1856.
Physicians and Physic. By Dr. Simpson. Edinburgh: Adam and Charles Black. 1856.
The American Journal of Medical Sciences. April. 1856. Philadelphia.
The American Journal of Dental Science. April. 1856. Philadelphia.
Sixteenth Annual Report of the Crichton Royal Institution for Lunatics. Dumfries. 1855.

TO CORRESPONDENTS.

Medicus, who sends us some verses on the Royal Medical Benevolent College, is thanked for his kind contribution; which is, however, hardly suited to our columns. Fully admitting the merits of the lines, and the excellent feeling which they display, we feel that the pages of a Medical periodical would not be deemed appropriate for the insertion of religious poetry.

An Associate.—We have heard something o the misunderstandings allnded to, bnt we do not consider the matter of sufficient public interest for discussion in this journal.

A Student.—"Fownes's Chemistry" is a very comprehensive treatise on the science; "Graham's Chemistry" is a highly philosophical work; and "Brande's Chemistry" contains almost everything which is known upon the subject.

Tyro.—We recommend you, by all means, to present yourself at the Matriculation Examination at the University of London. The examination is held every year at the beginning of July, and the fee is £2. You will require some preparation; but, if you have received a good education at school, you will not have much trouble in passing.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The experience I have had of the consequences of the office of Registrar of Births being held with that of Public Vaccinator, renders it, I think, very desirable that a clause should be introduced into the Vaccination Act, rendering (at least in future) the two offices incompatible in one and the same person.

If parents, on registering the birth, receive from the Registrar a card, directing or encouraging them to apply to him as public Vaccinator, they naturally think that the law compels them to go to him, and not to their own Medical attendant, especially when they see his official signature to the notice requiring them to have their children vaccinated.

My patients have most unwillingly gone to the Public Vaccinator, although they would have preferred coming to me, had they not laboured under a complete misconception upon this point, believing that they were compelled by law to apply to him.

The holding the two offices gives an individnal every opportunity of monopolizing the Vaccination of his own district by handing a Vaccination card (directing them to apply to him for Vaccination) when they register the birth. Such opportunities being offered to unscrupulous "Professional men," of interfering with, and taking patients from, their Medical neighbours, must create a feeling of disgust and apathy as respects carrying out the provisions of any Vaccination Act in which such an evil is not remedied in the simple way which I point out. I am, &c. A SUFFERER.

May 7, 1856.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—Allow me to draw your attention to the liberties taken with the duties of the office of Registrar of Births, etc.

—— ——, Surgeon, holds this office for one of the Westminster districts. When a birth is registered by him he requests the mother to bring the child to him for vaccination. The mother, taking for granted that this intimation is the legal form of the Act, complies, which very often indeed makes paupers of the respectable, and forces on the parish an otherwise unnecessary burden, thus leaving the Medical attendant to bear the loss with the best grace he can. I am, &c. MEDICUS.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

SIR,—The sister Professions have each their Clubs; ours has none. Why should it be so? The others have a common sympathy and object in view. We ought to have the same. No; we have no bond or union, no friendly feeling for each other; envy and all uncharitableness, the good fortune of our neighbours, does not delight us.

Let there be an end to all this: let us fraternize, let us become more gregarious. Let the present existing Medical Societies at once take this subject into their consideration, throw open their rooms to their members as reading-rooms, have all the Medical serials and newest publications, as also those of the kindred sciences and newspapers on their tables. It would become a central and friendly rendezvous, where we every day may meet socially our Medical brethren and neighbours, and thus wear off our Professional rust.

While thus advocating these district unions, let me further propose a grand central, or London Medical Club, constituted like the majority of clubs already existing in the metropolis, and conducted on the same principles.

For this purpose an annual subscription would be required, the members to be elected by ballot, and none but those legally qualified being eligible; these, and other rules and regulations, to be afterwards proposed and considered. The above hints, if worth your consideration, would, if carried out, I feel confident, do much to reform our Profession and infuse a more gentlemanly and friendly feeling among its members.

I should further advise that members of district or provincial Medical Societies should be eligible and welcome at any time as visiters. (Vide the "Rules and Regulations of the Society of Arts," etc.) M.D.

Nepos.—Avoid the whole gang of advertising quacks. The symptoms you describe are not difficult of treatment, and you may get relief from any respectable Surgeon. We know nothing of the party mentioned.

The letters of our Correspondents from Ireland and from Paris are in print; but we are compelled to postpone their appearance until next week.

Mr. G. M. Jones.—Our esteemed Correspondent must give us time.

Mr. C. R. Bree.—The wood-cuts refer not only to the lecture already printed, but also to that which is about to appear. The position of the cœlenterata will be indicated in future lectures.

Mr. Garland.—Yes.

The Royal College of Surgeons.—We cannot consent to obtain by bribery, information which, in common courtesy, ought to be promptly forwarded to the Medical Press.

Dr. Francis Bowen.—The case has been received, and shall meet with due attention.

COMMUNICATIONS have been received from—

Mr. RICHARD GRIFFIN; Mr. W. B. KESTEVEN; THE ROYAL INSTITUTION; Mr. FREDERICK SLIGHT; MEDICAL; M.D.; Mr. THOMAS TAYLOR; Mr. Mr. C. F. MAUNDER, Renkioi; Mr. GEO. E. PERRY; Dr. HODGKIN; PHILO-MEDICUS; Dr. RANKING; Dr. ANDREW SMITH; A COUNTRY SURGEON; Mr. T. F. BROWNBILL; Dr. C. J. HARE; Mr. JOHN HEWARD; Mr. W. L. BRITTEN; ST. GEORGE'S HOSPITAL; Mr. ERNEST HART; Mr. TOYNBEE; Dr. BEALE; Mr. W. ADAMS; THE ROYAL INSTITUTION; Mr. THOMAS STOKES; Mr. CARSTEN HOLTHOUSE; Mr. J. Z. LAURENCE; R., BOLTON; MEDICINA; Mr. H. TERRY; NEPOS; TYRO; AN ASSOCIATE; Mr. TAYLOR; Mr. JOSEPH THOMAS; Mr. NEVILLE; A STUDENT; Sir JOHN FORBES; THE MEDICAL OFFICERS OF THE SWANSEA UNION; Mr. THOMAS WESTROPP; Dr. SEPTIMUS GIBBON; A SUFFERER; Mr. C. R. BREE; Dr. GIBBON; Mr. ROSS, the London Hospital; Mr. ALLEN; Dr. SLOANE, Leicester; Mr. GARLAND; Mr. BACOT, Dorchester; Mr. G. M. JONES.

APPOINTMENTS FOR THE WEEK.

MAY 10. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.
MEDICAL SOCIETY OF LONDON, 8 p.m.
ROYAL INSTITUTION, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."
ROYAL BOTANIC SOCIETY, 3¾ p.m.

12. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

13. *Tuesday.*

Operations at Guy's, 1 p.m.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.
ROYAL INSTITUTION, 3 p.m.: T. A. Malone, Esq., "On Photography."
ZOOLOGICAL SOCIETY, 9 p.m.

14. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.
MEDICAL SOCIETY OF LONDON, 8½ p.m. *Lettsomian Lectures.*—Dr. Garrod "On the Nature and Treatment of Gout in its Latent and Developed Forms."
NORTH LONDON MEDICAL SOCIETY, 8 p.m.: Dr. Jenner "On Tapeworm, its Symptoms and Treatment."
ROYAL SOCIETY OF LITERATURE, 4½ p.m.
LITERARY FUND, 3 p.m.

15. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.
HARVEIAN SOCIETY, 8 p.m.: Dr. Handfield Jones "On the Operation of Malaria on the Human Body."
ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."

16. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.
ROYAL INSTITUTION, 8½ p.m.: Dr. A. W. Hofmann "On Ammonium."

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE II.

We have found that it is the peculiar characteristic of animals as living beings to pass through a cycle of successive changes of form—to undergo development, in fact. Now, in four out of the five great sub-kingdoms of animals, not only are the first vital changes (constituting the process of yelk division) of the same character, but the form of the particle of viable matter which exhibits them is the same. In the Vertebrata, the Mollusca, the Annulosa, and the Cœlenterata it is an "ovum," a minute spheroidal mass, containing a cavity with a central particle—the germinal vesicle and spot—usually invested by a structureless vitellary membrane. An ovum is essentially a bud-like, detached process of the parental substance; but it differs from other buds in that it requires to be submitted to the influence of a spermatozoon, the bud-like product of another organism, or of another part of the same organism, before its development can commence.

The general nature of the process of development has been well formulated by Von Bär as *the gradual differentialism of the simple into the complex*, a definition which holds equally well whether we consider the germ histologically or morphologically. The special nature of development will be fully considered in treating of each class, but I wish now to direct your attention to the fact, that development not only begins in an ovum but ends in the production of one, or of its equivalent, the spermatozoon. Development, in fact, ceases only with the attainment of the adult condition, and the mark of the adult condition is the production of ova or spermatozoa in the reproductive organs of an animal. Hence the vital changes are cyclical; beginning with an ovum they end in an ovum; and thus, though there is a physical continuity between the progenitrix of a race and her latest progeny, yet the material substratum presents a series of distinct, though constantly recurring, cycles of form.

I have restricted these remarks to the four higher sub-kingdoms of the animal world, for at present there is much doubt whether they will apply with equal truth to the fifth—the Protozoa. Ova and spermatozoa have hitherto been found only in some of the Spongiadæ, and we possess no evidence of their existence in the Foraminifera, Gregarinidæ, Thalassicollidæ, or Infusoria proper. Does the axiom "omne vivum ex ovo" fail here then, or does its apparent inefficiency lie merely in our insufficient knowledge? It is safer, I think, to assume the latter, especially as the whole tendency of later investigation has been to show, that among the lower animals there is hardly any limit to the number of minor cycles of change into which the great cycle, from ovum to ovum, may break up under favourable conditions.

The proposition that every living thing proceeds from an egg is usually maintained in opposition to the doctrine of "equivocal generation;" but it was not held to be inconsistent with the latter by the immortal propounder of the axiom himself(a), who expressly states, that he means by "ovum" merely the "primordium vegetale" "substantiam quandam corpoream vitam habentem potentiâ;" which "primordium," he allows, may arise either spontaneously or from pre-existing forms of life.

If it turn out that some of the protozoa never develope either ova or spermatozoa corresponding with those of the higher animals, we shall have to take the word "ovum" in the aphorism in as wide a sense as that in which Harvey employed it. But even in this case, so long as such "primordium vegetale" is invariably found to proceed from forms similar to those which it produces, we shall be as far as ever from "equivocal generation."

The latter phrase is, in fact, intelligible in only two senses: either it means that viable matter which forms or has formed part of one kind of living being may give rise to some other quite distinct kind; or else that viable matter may arise independently of all pre-existing life, and develope into a living being. For the latter form of the doctrine there is no shadow of scientific evidence, nor indeed is it any where maintained. But the former has still its supporters, and it must be candidly confessed, that the phenomena presented by morbid growths on the one hand, and those attending the origin of the yeast plant on the other, are sufficiently perplexing to render any *à priori* rejection of cases of equivocal generation, in this sense, highly unphilosophical. There is no doubt, however, that the whole course of modern investigation tends to show that the probabilities against the occurrence of equivocal generation are enormous—so great, that nothing but the very highest class of evidence can justify its assumption in any given case. (b)

Among the higher animals, we term the whole developmental cycle proceeding from a single ovum—the sum of the whole series of changes from the embryonic to the adult condition—the Individual. The individual man is neither the embryo nor the child, nor the youth nor the adult man, but the sum of all these. No part of the individual among these higher forms can live independently, and its successive states pass so gradually into one another, that there is no clashing between our ideas of independence and those of individuality; on the contrary, they are so mixed up, that we come to regard them as one and indivisible. However, even in the lower vertebrata, the amphibia for example, we find a certain difference presenting itself, the successive developmental stages of the batrachian—the tadpole and the frog, presenting wider and more sharply marked distinctions. The difference increases as we enter the invertebrate series, where, among the insects for instance, the successive stages of development, the larva, pupa, and imago states are to all appearance so definitely separated from one another, and so widely dissimilar, that their development has received the particular and distinctive appellation of "metamorphosis." I would particularly observe, however, that this process differs in no essential respect from ordinary development; the periodical ecdyses of the caterpillar are no more than the equivalent of the constant and insensible casting of the epidermic organs in other animals; the last skin—the pupa case, simply conceals from view those developmental changes of the most ordinary character, by which the larva is converted into the imago; and the sum of the larva, pupa, and imago conditions constitutes the individual insect.

Suppose now that the cast larval skins, or the pupa-cases, could live for a while after their separation, just as the tail of a lizard will live for a while after its separation from the body—would this alter the nature of the case? would the larval skin cease to be what it was before? a stage in the life of the individual—a mere independent part of the individual in fact. Assuredly not. But this is by no means a hypothetical case. We shall find among the echinodermata, that certain asteriadæ undergo a metamorphosis of precisely this kind—the bipinnaria larva possessing a certain amount of vitality independent of the starfish imago to which it gives rise. In this case, therefore, it is possible, that the successive stages of the individual (represented by the bipinnaria and the starfish) should be for a while co-existent. Imagine again, that these co-existent stages of the individual were, like many of the lower animals, able to maintain their vitality when divided into several pieces; by so dividing them we should obviously have made no change in what constitutes the individual—which would still equal the sum of all these portions. Now, this case also exists in nature. I shall have to point out to you numberless instances among the lower invertebrata in which the homologue of the larva, produces, either by budding or by

(a) See, for instance, the following passage, among others:—"Quippe omnibus viventibus id commune est ut ex semine ceu ovo, originem ducunt. Sive semen illud ex aliis ejusdem speciei procedat sive *casu aliunde* adveniat. Quod enim in arte aliquando usu venit, id idem quoque in natura contingit; nempe ut eadem casu sive fortuito eveniant quæ alias ab arte efficiuntur; cujus rei (apud *Arist.*) exemplum est sanitas. Similiterque se habet generatio (quatenus ex semine) quorumlibet animalium; *sive semen eodem casu adsit*, sine ab agenti univoco ejusdemque generis proveniat. Quippe etiam in semine fortuito, inest principium generationis motivum *quod ex se et per seipsum procreet;* idemque quod in animalium congenerum semine reperitur; potens scilicet animal efformare.—Harvey, "Exercitationes de Generatione Animalium."—P. 242. Amstelœdami, 1651. It is curious after this to find Harvey regularly quoted against the supporters of the doctrine of equivocal generation!

(b) See a most instructive illustration of this in Cohn's valuable paper on the Empusa Muscæ.—Nova Acta, 1854.

fission, a multitude of separate forms, these again giving rise to others in the same way, until at last the zoological individual may be represented by thousands or even millions of distinct entities. Now, between these self-maintaining, independent existences, on the one hand, and mere detached organs or stages of development on the other, you will find that no line of demarcation can be drawn. In whatever relation the latter, therefore, stand to the individual, in the like category must the former be ranged; but as their independent existence renders a distinct name for them convenient, I shall use the term "zooid," some time since proposed, and now frequently adopted, to distinguish such parts of an individual animal as have an independent existence.

The phenomena of zooid development have, however, been viewed in a very different manner. When first Chamisso drew attention to them as they occur in the Salpæ, he imagined that the two zooid forms proceeded from one another by corresponding processes of *generation;* and he drew the conclusion that here was a case of what he called the "alternation of generations," the progeny resembling, not its parent, but its grand-parent, and giving rise to an offspring resembling its parent, and not itself.

The confusion of two entirely distinct modes of propagation was perpetuated by Steenstrup, who extended the views and the terminology of Chamisso to a great number of other cases; at the same time burthening a subject, already difficult enough, with new terms and views not unfrequently based upon somewhat fanciful analogies.

Nor can I find that much light was thrown upon the subject by Professor Owen's work on "Parthenogenesis," whereby science has indeed gained an hypothesis, but, as far as I can discover, no other advantage.

The learned Professor, in fact, while perceiving and admitting the distinction between true generation and the process of zooid development, which he calls "parthenogenesis," or virgin procreation, seems unable to conceive the possibility of such development without the exertion of some male influence. In no case of the so-called "alternation of generations," however, is there any such direct influence; it is the very essence of the process that it takes place without the intervention of spermatozoa—that it is budding, or fission, and not sexual generation. But very frequently the part from which the budding or fission takes place retains the simplest histological structure, having undergone no further differentiation, but remaining in the condition of any young part, or in that (for the terms are equivalent) of the primary mass of the germ. Professor Owen, if I understand him rightly, proposes to obviate the difficulty arising from the acknowledged absence of any direct or immediate action of the male, by supposing that such a part really *is* a portion of the primary mass of the germ, and that it gives rise to a new being—simply because it retains the "*spermatic force*" imparted to it, in common with the rest of the germ, in the fecundation of the original egg.

As a matter of fact, it is absolutely indemonstrable that the pseud-ovarium of the viviparous, or "Parthenogetic" aphis, contains more of the "primitive germ mass" than does any other of the glands of the insect, or than does the deep layer of the epidermis of the human skin. The assumption that *any* of the primitive germ mass of the first aphis developed by sexual generation is contained *unchanged* in the pseud-ovarium of its zooid successors is gratuitous: the assumption that the pseud-ovaria of even any one of these successors are entirely composed of such unchanged germ-mass involves, I imagine, a physical impossibility,—the pseud-ovaria forming a much larger mass than the whole of the primitive germ-substance. If it be meant, on the other hand, that the "cells" of the pseud-ovaria of the viviparous Aphides are merely the descendants of the primitive germ-mass retaining the simple histological condition of their predecessors,—the proposition is as just as it is trite; but, in this case, how do they differ from any other young tissue? and why does not "Parthenogenesis" take place every day: our Minervas springing full grown, not, indeed, from the brain, but from the rete mucosum of the scalp, whose tissue ought to retain at least as much "spermatic virtue" as that contained in the pseud-ovarium of the eleventh series of zooids, developed from an aphis germ.

How much of the primitive germ-substance again remains in the colony of hydra tuba, which has, perhaps, extended over a square foot of surface before the process of development of its medusa-zooids occurs? And, even supposing the "spermatic force" were retained in the "Parthenogetic" tissue, how far is the statement, that "parthenogenesis" takes place in consequence of the "spermatic force," to be taken as in any way helping us to a clearer view of the phenomena?

I confess it appears to me, that the phenomena of zooid development are on exactly the same footing as the most ordinary phenomena of gemmation; and that the latter are precisely as much, or as little, explained by a hypothetic retention of "spermatic virtue" as the former.

The zoological individual, then, is the sum of all the successive stages of development through which the product of a single fecundated ovum passes, whether these stages have an independent existence or not. Of such individual animals there are almost infinite multitudes; and they constitute the facts of that branch of Morphology which is known as Zoology. Now, the first object of the zoologist is to become acquainted with these facts; the second, to classify his knowledge into general propositions, whereby it becomes, not only readily retainable in the memory, but serves as an instrument for further investigations.

A classification which is constructed so as only, or chiefly, to serve a mnemonic purpose is not only useful but necessary in the infancy of science, where the primary object is the attainment of exact knowledge; but, where a great body of such information has been obtained, the persistent adherence to an artificial classification may be not only useless but positively injurious, to its progress.

The period at which an artificial classification of animals could serve any useful purpose has long since passed away; and, from the time of Cuvier, classification has been in intent, if not in fact, natural; it has striven to be only the expression of the generalizations of Morphology. What are these generalizations? An attentive consideration of the varieties of animal individuals at once shows that there are greater or smaller groups among them, whose members are so much like one another, and, at the same time, present so constant a difference from other forms, that they may all conveniently take the individual name. Such groups are what are in untechnical English called "kinds." Men, horses, sheep are such "kinds," and so are negroes, barbs, and merinos; and, in my apprehension, the great majority of what are technically called "species" are groups of precisely the same character; that is to say, they are simply the smallest assemblages of individuals which can be distinguished from others by a common character. This is very far, however, from being all that is implied by the term "species," as commonly used, naturalists ordinarily assuming that a species is something very different from a mere definable "kind" or sort of living being,—that "species," in short, have physiological characters by which they can be distinguished from all other kinds. These characters are twofold,—1. The individuals of a species are supposed to be descended from a single parent, or pair of parents, originating independently of all other living beings; 2. Their modifiability is supposed to be limited.

The space of a lecture, or even of many lectures, would be wholly insufficient to discuss the arguments in favour of and against these propositions, or, in other words, the important but most difficult question of the existence of physiological species; and I will, therefore, merely state, briefly, what appear to me to be the fairest conclusions from the evidence hitherto brought forward.

As regards the first part of the accepted definition of species, I am not aware, that we have demonstrative evidence of the unity of parentage of any one species whatsoever, although the balance of probabilities appears to be strongly in favour of the correctness of this view. Assuming single parentage, however, the question arises, how did the first ancestor or ancestors originate? The ordinary reply is, that they were independently created. In this case the question passes out of the domain of science altogether, and is confessedly given up as a matter of inquiry; for we can only inquire into the conditions of a phenomenon; and, by assuming a special creative act, we admit it to be unconditional. On the other hand it is to be remembered, that we have not the slightest scientific evidence of such unconditional creative acts; nor, indeed, could we have such evidence; for, if a species were to originate under one's very eyes, I know of no amount of evidence which would justify one in admitting it to be a special creative act independent of the whole vast chain of causes and effects in the universe. On the other hand, if the ori-

ginal parents of species did not come into existence in this manner, but in some comprehensible way—in the ordinary course of things, as we phrase it—then there can be no doubt that some form or other of that hypothesis—not less abused by its supporters than by its opponents—called the "Theory of Progressive Development" will present by far the most satisfactory solution of the difficulty.

The hypothesis of progressive development maintains that the ancestors of species were not themselves independently and specially created, but were the result of the modification of individuals of pre-existing species, and that thus, in the course of long ages, a gradual development was effected from simple viable matter up to the highest forms of life, corresponding with the analogous changes now occurring in the course of the embryonic development of the highest animals.

That such an hypothesis is fair and scientific, that many facts countenance the possibility of such a gradual development, and that it is very difficult to imagine the origination of species in any other way, are propositions which will, I think, receive the assent of candid thinkers; but, on the other hand, it must equally be admitted, that there is nothing which can for a moment be called demonstrative evidence in its favour, and that the facts of Palæontology, though by no means incompatible with the hypothesis, afford it not even a shadow of positive support.

Of course the theory of progressive development would necessarily fall to the ground, were the proposition which forms the second part of the received definition of species, viz., that the modifiability of species is limited, indisputable. Unfortunately it is very far indeed from being so.

The individuals of every species are on all hands admitted to be modifiable by conditions, the principal of which may be said to be parental, climatal, and educational. Any individual may be made to deviate to a certain extent from the typical form of its species by a modification of the light, heat, etc., which it receives, and by training, and it will tend to transmit the deviation thus produced to its offspring. It is conceivable that this offspring may be further modified in the same way, and may transmit its further deviation from the original type to *its* offspring, and so on until any imaginable amount of divergence results. Among our domestic animals it is known that very great changes have been thus effected upon the type of the species, and the "breeds" or "races" thus produced may differ as widely from one another as do many species, while among plants this is still more remarkably the case. The amount of difference between any two allied forms with whose history we are unacquainted is not in itself, therefore, conclusive, either for or against their specific distinctness.

There is no evidence, so far as I am aware, to show the existence of a limit to the modifications which may be produced by climate and training, although there is no doubt that the process of modification is excessively slow, and that mere races are often exceedingly persistent.

The evidence relating to the limits of parental modification, on the other hand, appears to be conflicting. Very widely distinct kinds assuredly will not breed together. Even among those which are more closely allied and will intermix, the hybrids are, among animals, rarely fertile, though this rule would by no means appear to hold good so generally in plants. On the other hand, there is evidence to show that acknowledged varieties of a species often intermix with great difficulty. Even were physiological species distinguishable by their want of power to form fertile hybrids, as is commonly assumed, the test is almost useless in practice, from the impossibility of applying it in any but a very few cases; and when we consider that there are numerous instances among plants, in which species A acting as a male will fertilize B, while B acting as a male will not fertilize A; and others, such as that of the primrose and cowslip, in which, in one country hybridism never occurs naturally, while in another it is constant and the hybrids are fertile; I think the only conclusion to be drawn is, that the test of hybridism is almost valueless.

Such are, so far as I am aware, the main points in the evidence which has been adduced for and against the doctrine of the existence of physiological species; and I think our conclusion from them must be, that the positive evidence is wholly insufficient to establish that doctrine; and that it is most inexpedient to allow such a doctrine, based as it is mainly upon unproved assumptions, to form one of the fundamental positions of natural history. Hereafter, therefore, I shall use the word "species" only in two senses: either it will mean the smallest group of individuals which can be defined by a common character, and absolutely separated from all other groups by that character, and this might be termed a *morphological species;* or, it will denote simply the smallest convenient groups into which a mass of individuals can be arranged, quite irrespective of any absolute lines of demarcation; of which latter merely *conventional* species there are unfortunately too many.

Genera are groups which stand in the same relation to Species as the latter to Individuals, and Families are like groups of Genera; Orders of Families; Classes of Orders; Subkingdoms of Classes, and Kingdoms of Subkingdoms. Now are these Genera, Families, etc., mere conventional arrangements, or are they properly the expression of fixed Morphological Laws? I am inclined to the latter opinion, chiefly because I can find no evidence that any transitional form exists or ever has existed between the larger of these groups, such as sub-kingdoms; and because the increase of our information has hitherto invariably shown that supposed cases of transition from one great group to another are no real transitions at all. It was once supposed that the Amphioxus connected the Vertebrata with the Annulosa; that the Cirripedes connected the Annulosa with the Mollusca; that the Polyzoa connected the Mollusca with the Polypes; and that the Echinoderms were the link between the latter and the Annulosa. In all these cases, however, careful investigation has ended in throwing the supposed transitional forms completely into one of the groups which they were supposed to connect, and separating them from the other. I am inclined to believe that the same result will accrue from a similar scrutiny of the supposed transitions between Classes, Orders, Families, and Genera; and that thus we shall at length obtain a series of fixed and absolutely limited groups, whose definitions, taken together with those of the morphological species, will constitute the expression of the Laws of Definite Combination (if I may so term them) of Animal Forms. At present, however, I am bound to confess that this belief is no better than what the Regent Murray was wont to call a "devout imagination."

It remains only that, before proceeding to the special study of the different divisions of the Animal Kingdom, I should explain to you shortly the nature of the classification followed, and the reasons which have led me to its adoption. Linnæus, after giving the great divisions of the vertebrata pretty nearly the form which they now retain, left the whole mass of invertebrate animals, except the insecta, under one head, that of Vermes, roughly subdivided into vermes intestina, mollusca, testacea, lithophyta, and zoophyta. One of the earliest, and, at the same time, one of the greatest services rendered by Cuvier to natural history, consisted in the analysis of this great heterogeneous mass, which he commenced in 1795; and ended in 1812, by its reconstruction into the subkingdoms of the articulata, mollusca, and radiata, parallel with and equal to the vetebrata. This was an immense step; but no one who has ever seriously studied Cuvier's Radiata can have imagined that it was final. As our knowledge of the lower forms of animal life has increased, in fact, the conclusion has forced itself upon the mind, that the radiata of Cuvier, like the vermes of Linnæus, is little more than a lumber-room for the stowage of those forms with which Cuvier and his contemporaries were necessarily very imperfectly acquainted; and every great improvement which has of late years been made in the general classification of animals has consisted in the detachment of a group from the "Radiata" and its transference into its proper place elsewhere.

Thus Milne Edwards long since demonstrated that the polyzoa properly belong to the molluscous subkingdom. Nine years ago MM. Frey and Leuckart clearly proved the necessity of uniting together the other "Polypi," the acalephæ, and the beroidæ, under the title of "Cœlenterata," a circumstance of which I was ignorant, when, in 1851, I ventured to propose the term "Nematophora," for a group with identical limits. The term *Protozoa* has been used since Carus first propounded it, in various senses. I employ it here to denote that very natural and most distinct group which contains what have have been termed the "unicellular animals." The (animal) Infusoria; the Foraminifera or Rhizopoda; the Gregarinidæ; the Spongiadæ; and the peculiar forms thalassicolla and noctiloca. I regard the protozoa and the cœlenterata as subkingdoms equal to the annulosa, vertebrata, and mollusca; and I consider that the radiate subkingdom must be given up altogether, and its place supplied by these two. If these

ideas be correct, therefore, there will be five, instead of four, subkingdoms of Animalia.

But the "Radiata" of Cuvier contain, besides the Polyzoa, the Cœlenterata, and the Protozoa, a great number of other forms—the Trematoda (including the Cystica and Cestoidea), the Nematoidea and Rotifera, and the Echinodermata. I imagine that the position among the Annulosa assigned to the former three groups in the following table is one which will not be questioned by those who have recently made them their study (c).

Of the whole group of Radiata, then, the Echinodermata alone remain undisposed of. The position which I have given them among the Annulosa is as yet, I am sorry to say, sanctioned by no better authority than my own. The positive evidence in favour of the place which I have assigned to them will be laid before you when the class comes under discussion; but I may point out, in the meanwhile, the strong negative evidence in favour of my view, viz., that the Echinoderms assuredly have nothing to do with either the Protozoa, the Cœlenterata, the Mollusca, or the Vertebrata; and that the only obvious alternative, if my view be rejected, is to make them into a sub-kingdom by themselves—a step which, I conceive, no naturalist would be inclined to take.

I shall speak of the minor subdivisions under the head of each sub-kingdom; and here I might leave the subject, were it not improper to ignore a different arrangement, which has been put forth within the last year by an eminent contemporary, and which will be found to differ very widely indeed from that here proposed. Professor Owen divides the animal Kingdom into four "provinces," the Vertebrata, the Mollusca, the Annulosa, and the Radiata, identical in their extent with the divisions of the same name instituted by Cuvier. His arrangement of the sub-divisions, however, is, I believe, almost entirely peculiar to himself. The student of the Articulata, for instance, is astonished to find the Epizoa and the Cirripedia removed from the Crustacea altogether, and, indeed, occupying the position of classes *equivalent* to the Crustacea, the Insects and the Arachnida. The arrangement of the province Radiata is, I confess, to me even less intelligible; it is divided into three "sub-provinces," Radiaria, Entozoa, and Infusoria. The first of these is made to embrace the Echinodermata, the Polyzoa, the Anthozoa, the Acalephæ, and the Hydrozoa, — groups of animals which differ from one another in organization as much as the Vertebrata, the Annulosa, and the Mollusca do. In the second division of the "Entozoa," I find the Cœlelmintha, Turbellaria, and Sterelmintha, (the last a term which should be erased from science, as it is based upon an anatomical error.) In the last division, "Infusoria," are the Rotifera, Rhizopoda, and Polygastria, of which three groups no single affirmation could be made in common. At the same time, the efforts which have been made to improve the classification of the Radiata on this and the other side of the channel are, so far as I can observe, entirely ignored. It is my duty to express my belief that the general adoption of such a classification as this would be one of the most thoroughly retrograde steps ever taken since Zoology has been a science, and would impede to a most mischievous extent its advance in this country.

Arrangement of the Animal Kingdom.

VERTEBRATA.

(ABRANCHIATA.)
Mammalia.
Aves.
Reptilia.

(BRANCHIATA.)
Amphibia.
Pisces.

MOLLUSCA.		ANNULOSA.	
		ARTICULATA.	
Cephalopoda.	Heteropoda.	Insecta.	Arachnida.
	Gasteropoda dioecia.	Myriapoda.	Crustacea.
Pulmonata. Pteropoda.	Gasteropoda monœcia.		
Lamellibranchiata			

MOLLUSCOIDA.		ANNULOIDA.	
Brachiopoda.	Ascidioida.	Annelida.	Scoleidæ.
*Polyzoa.		*Echinodermata.	*Trematoda.
		*Rotifera.	*Tœniadæ.
			*Turbellaria.
			*Nematoidea.

*CŒLENTERATA.

Hydrozoa. Actinozoa.

*PROTOZOA.

Infusoria.	Spongiadæ.	Gregarinidæ.
Noctilucidæ.	Foraminifera.	*Thalassicollidæ.*

The groups marked * formed the "Radiata" of Cuvier.

(c) So long ago as 1838, in fact, the necessity of this arrangement was obvious to the acute mind of Milne Edwards:—"Je crois qu'il faudrait diviser cet embranchement (Articulés) en deux groupes principaux, comprénant l'un les Articulés à pieds et l'autre les Annelides, les Helminthes, les Rotateurs, etc., serie a laquelle on pourrait conserver le nom vulgaire des vers."—"Sur la Circulation dans les Annelides." Annales des Sciences, X., p. 194.

ORIGINAL COMMUNICATIONS.

CASE OF HYSTERIA SIMULATING CATALEPSY.

By HENRY GRAMSHAW, M.R.C.S. Eng., and L.S.A.

As I have lately met with two cases somewhat alike in character, and as I have by me the notes taken when in attendance on the last, I shall not hesitate to transmit them for publication, in the hope that, if they possess no feature of unusual interest, they may, at all events, be added to the experience of those who have not come in contact with disease taking precisely this form.

On the morning of March 18, 1856, I was sent for in haste to visit E. Davis, a servant-girl, aged 23. *Previous history.*—Her mistress says she has had good health till lately; within the last week or two she has occasionally complained of pain in the head. Thinks the patient has not menstruated very regularly, but believes she was unwell about three weeks since. Does not know what brought on her servant's illness; she is comparatively a stranger, and so can give no information about her relatives, but thinks her mother died in a fit. She is engaged, but there has been no misunderstanding with the person she is to be married to, as she learns from him. There has been no exposure to cold. The girl is usually sullen.

Present attack.—Davis was taken ill about 11 o'clock yesterday morning. She went to the pump, and came back into the house with her hair wet and disordered. Could not explain how it came so. She looked strange and embarrassed. Her mistress, considering her ill, sent her to bed, and gave her some castor-oil. She got composed, and when the oil had freely acted seemed better; passed a tolerable night, and made an abundance of water of a pale character. Early this morning (18th), she was visited by her mistress, and in her presence Davis swallowed some coffee, after which her eyes seemed suddenly fixed, and she fell back in bed unconscious. Her appearance was so strange, that death was feared, and a Surgeon was summoned.

Present state (10 a.m.)—Patient, a fresh-coloured girl, lies in bed on back; arms crossed; eyes closed; surface cool; feet warm; pulse irregular, about 100, not full; occasionally sighs out. On separating eyelids eyes roll about expressionless; pupils rather dilated, and act very sluggishly on moving a light before them; she protrudes tongue after my speaking loudly several times, urging her to do so; it is large, moist, and not coated; does not deviate from middle line; no distortion of the face. Respiration tranquil; no peculiar smell about breath. On pricking sharply various parts of the surface with a needle, manifests no sign of feeling whatever; dashing water on the face produces no effect. No evidence of chest disease detectable on stethoscopic examination. Has been in an insensible state similar to the present for two hours.

Treatment.—The patient residing some distance from my house, I placed two large mustard cataplasms on the calves of her legs, and returned home for medicines.

On visiting her again, in an hour, no change had taken place; the plasters had been kept on half-an-hour, but the patient did not seem to heed them. She still lies in a fixed, rigid state, from which nothing rouses her. I proceeded to cup her on the sacrum, but did not procure more than 8 ounces of blood. She had a blister placed on the loins, and an assafœtida enema administered. I also with difficulty suc-

ceeded in giving her a dose of medicine, containing assafœtida and valerian.

At two o'clock p.m., when I left the house, no change had taken place in the symptoms. The attendant was desired to foment the lower part of the abdomen and perinæum diligently, with flannels wrung out of hot water, and to give two cathartic pills at bed-time, if possible.

March 19th.—Patient evidently much better. Attendant says: Immediately after the glyster had operated (three o'clock, p.m.), Davis became conscious of what was going on, and said she felt greatly relieved; has not relapsed at all into her former state; has taken her medicine regularly; the bowels have not acted since the enema was ejected; slept tolerably; complains of slight giddiness about the forepart of the head; has no pain anywhere else, except from the blister, which rose well; tongue clean; pulse 100. Has no remembrance of what occurred yesterday.

To have an aperient draught; to keep on low diet, and take the following mixture:—

℞ Tinct. hyoscyam. ʒiss., sp. lavand. co. ʒij., mist. camph. ʒiij. M. Ft. mist. cap. coch. ij. mag. ter quotidie.

March 20.—Still improving; bowels have been relieved; to continue medicine, and take two compound galbanum pills om. noct.

March 21.—Down stairs. The menstrual discharge made its appearance to-day; in every way better, but weak.

Remarks.—That disordered menstruation was the *fons et origo mali* in the foregoing attack cannot for a moment be doubted, bringing about a tendency to determination of blood to the head. The principles on which the case was treated were, as far as possible, to solicit a return of the natural evacuation, not to provide a substitute for it; and with that view I refrained from energetic depletory measures, and fixed upon the lower part of the back and pelvis as the locality most proper to invade with fitting remedies.

The diagnosis was not very difficult, but there was here a complete absence of that excitement commonly accompanying an hysterical seizure,—no tossing about of the limbs, no outcry, and the resemblance was stronger to the insensibility attending apoplexy or narcotic poisoning. The absence of puffing breathing, the way in which the attack came on, and the general appearance of the patient negatived the supposition that apoplexy was what we had to deal with. But the symptoms might have misled one had there been anything to create a suspicion of poison having been swallowed. Here was a girl engaged to be married, and of sullen and capricious temper as it chanced; though with her betrothed shortly before her attack, no quarrel was known to exist, and they were on good terms when they parted; but had it been quite the reverse, (as it easily might have been,) very grave suspicion would possibly have arisen that in a fit of anger some drug had been taken; more especially if the long continued unconsciousness supervening (eight hours) had occurred on the same, instead of the following day.

True, nothing was detectable in the breath, and the pupils were not contracted; but the latter circumstance would not have spoken in sufficiently decided language, for at one time they were, at another not; and, on a cursory examination, they might have been found in a contracted state.

A girl, in the habit of taking stimulants, and smelling strongly of them, would have baffled even narrow scrutiny, and perhaps would have led a Medical man into an uncharitable, if not dangerous error, more especially where the patient's previous history could not be arrived at with certainty.

I have had another case, very similar in some respects to the foregoing, only the insensibility was not so complete, and considerable strabismus was present at times,—the attack, upon the whole, being not so severe, and all the symptoms of head mischief subsiding on the re-establishment of the customary discharge.

I have called this hysteria simulating catalepsy; but I only know that disease from the description of it in books. May not catalepsy proper result from faulty or checked menstruation? Is a state of insensibility, similar to that I have been describing, a frequent occurrence with females whose functions are irregular? Certainly, the state of *living death* (to use a contradictory expression) which existed in this case, was most curious, and it surprised me to find so little subsequent harm arising from the prolonged congested state of the brain.

The Upper Green, Tettenhall, near Wolverhampton.

CASE OF DROPSY OF THE AMNION.

By HORACE K. DEBENHAM, Esq.

Excessive accumulation of the liquor amnii, constituting what is termed by writers "dropsy of the amnion," cannot be looked upon as a common affection. Ramsbotham speaks of it as "a rare cause of lingering labour," and Dr. Lee, who has paid especial attention to this subject, has obtained particulars of but five cases of the disease.

Cases of this description must at all times be attended with a considerable amount of obscurity previously to the evacuation of the fluid, but in an instance which has lately presented itself to my notice, the diagnosis was so complicated, the symptoms manifested were so urgent, and the jeopardy to the life of the patient so great, that you will perhaps think it deserving of notice in your pages.

I first saw M. G. when in labour with her first child in the month of May, 1854. She was 26 years of age, a fair-complexioned, delicate-looking woman, and the wife of a gentleman coachman, living in Worcestershire. I was summoned by the midwife in attendance, who assured me that my patient had experienced more or less regular pains for sixty hours, after the escape of about a usual proportion of liquor amnii; but still the child made no advance, and the expulsive efforts had in a great measure subsided. Upon examination I found an evident narrowing of the pelvis in its antero-posterior diameter; the head of the child was impacted at the brim, and the vagina and external parts were hot, swollen, and covered with that peculiar olive-coloured discharge so indicative of exhaustion, and which was confirmed by the state of the pulse and general condition of the patient. The os uteri being sufficiently dilated therefore, the child, which had been some time dead, was at once extracted with the long forceps. Most violent hæmorrhage immediately followed, and the flooding continued for a considerable time after the removal of the placenta, so that a very large quantity of blood was lost before the uterus could be induced to contract. Although in a very exhausted and bloodless condition she progressed steadily for the first week, when she was unfortunately seized with phlegmasia dolens which attacked the right leg, thigh, and hip, and confined her to her bed for another month; but she eventually made a good recovery.

Towards the latter end of the year she told me that she had again become pregnant in the month of September, and requested me to attend her in her confinement, the anticipation of which caused her to be very low-spirited and desponding, as she felt, she said, "quite different to what she had done with her first child." I saw nothing more of her until the month of February, at which time she was six months gone, when I was one morning hastily summoned to her. I found her upon her back, propped up in bed, quite unable to move, her countenance wearing an expression of great distress and anxiety, attributable apparently, in a great measure, to difficulty of breathing, the respirations being between 70 and 80 in the minute. She told me, that, from the very first, she appeared much larger than she ought to have done, and the swelling she described as having originated in a lump, which was at first entirely confined to the right side; it became gradually more diffused, however, and the last three or four days had increased in size immensely. Although only six months gone, upon examining the abdomen I found it much more distended than it ought to have been at the full time, in fact, I never before saw a case of either ascites or ovarian disease where the enlargement presented a more frightful appearance, and I much regret that I did not take the measurement at the time; the integuments of the abdomen from excessive stretching looked almost transparent, and fluctuation was singularly distinct at every point; she had passed no urine for thirty hours, and upon attempting to employ the catheter, I was unable to introduce it, the bladder being completely tilted forwards over the pubis. An examination per vaginam found the os uteri dilated to about the size of a shilling, and as it was decidedly influenced by a slight grinding pain which came on every few minutes, I felt no hesitation in rupturing the membranes, which gave exit to half-a-pint, or rather more, of liquor amnii, and the pains increasing steadily, a dead six months' child was extruded in a quarter of an hour or thereabouts.

Her breathing was now somewhat relieved, but still the size of the abdomen was not apparently influenced in the slightest.

Upon tracing the funis upwards, I found a second bag of membranes presenting, which I presently ruptured, the nature of the case being at once apparent enough. The rush of water I shall never forget; two chamber-vessels were filled to overflowing, and the floor of the room was swamped in an instant, and I am satisfied that there could not have been less than from four to five gallons; and to show the force of the current—when I proceeded to lift up the bedclothes, although there had not been the slightest evidence of anything like uterine contraction, the second fœtus had been washed out, and was lying a foot distant from the woman's nates.

The sudden removal of this large body of fluid caused the most alarming depression and faintness. I directed the nurse to kneel behind my patient, and make firm pressure on the abdomen with both her hands, and I at once gave her a liberal supply of gin, which was fortunately in the room. Before I had time to detach the fœtus, however, I found that she was flooding to an alarming extent; so I at once bared my arm, and with the greatest ease pushed my hand up as high as the ensiiform cartilage, the uterus being perfectly flaccid, and it was so completely paralysed by over distension, that, kneading the abdomen externally with my right hand, the application of cold water etc., failed to induce the slightest contraction, and blood continued to well out rapidly by the side of my arm; my poor patient, too, had become excessively restless, and attempted to change her position every instant, so that altogether matters looked far from promising; seeing an enema apparatus, however, on the mantel-shelf, I directed the nurse to put it together, and I passed the pipe by the side of my arm into the cavity of the uterus, into which the nurse pumped a large body of cold water; the effect was immediate; my hand, together with the two placentæ, which I had grasped, was quickly expelled, and the uterus remained firmly and permanently contracted. From this time convalescence proceeded uninterruptedly, although a work of months, from the immense amount of blood which she had lost.

Never having before met with a case of the kind, I must confess that I had not recognised its nature previous to the escape of the fluid, when, of course, it was at once apparent enough. At first sight I thought my patient was deceived as to the fact of her being pregnant at all;—her enormous size only six months after the cessation of menstruation; the remarkable distinctness with which fluctuation could be recognised at every point of the abdomen; the great diminution in the amount of the urinary secretion; the absence of the stethoscopic signs of pregnancy; but, above all, the fact of the swelling having commenced entirely on one side, which the patient herself particularly insisted upon without any leading question on my part, looked, I thought, very like ovarian dropsy. There was an evident development of the mammæ, but that is not an unfrequent result of ovarian disease; however, an examination per vaginam at once proved she was with child; and I then concluded the case was one of ovarian dropsy, developing itself contemporaneously with pregnancy. The birth of the first child confirmed, as I thought, the opinion I had formed; but I had barely time to congratulate myself upon my diagnosis, when the discovery of the second bag of membranes, and their speedy rupture, proved my mistake.

If my patient had gone to her full time before labour set in, and the uterine veins had, in consequence, attained their full size, she must, as I believe, have inevitably flooded to death; as it was, the amount of blood lost was really frightful; and when, as in this case, the usual means fail in inducing contraction of the womb, I shall always entertain a very high opinion of the value of cold water injected into the uterine cavity.

Dropsy of the amnion has, by some authors, been referred to a syphilitic taint, but here both the patient and her husband were entirely free from any suspicion of the kind; and the fact of her having become pregnant so shortly after a very severe labour, attended with great loss of blood, and followed by a protracted "getting-up," warrants us, I think, in suspecting that the disease of the ovum was dependent upon this, in the absence of any other evident exciting cause. In this case, we may view it merely as a variety of dropsy consequent upon general debility. Or again,—during the attack of phlegmasia dolens it is, I think, not at all unlikely that the inflammation extended from the femoral vein to the veins of the ovary, which would so far disturb the circulation through that organ as to originate the morbid action set up in the ovum; which supposition is, I think, strengthened by the fact, that the phlegmasia dolens attacked the right leg, thigh, and hip; the diseased ovum being apparently detached from the same ovary, as shown by the patient referring the swelling, and the uneasy sensations which she experienced at the early part of her pregnancy, to that side.

Kensington-park Road.

THE LONDON
PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

TWO CASES OF SUPPURATION IN THE ABDOMINAL PARIETES.

(Communicated, with Remarks, by Dr. HABERSHON.)

Suppuration in the parietes of the abdomen is frequently presented to the Physician simulating deeper seated mischief, and for a short time considerable obscurity may attend it—sometimes of an acute character, accompanied with considerable pain and febrile excitement, before inflammatory œdema of the skin has come on, and while the effused products are bound down by firm fascial investments closely resembling cœcal disease or local peritonitis; in fact, every region of the abdomen presents us with disease on the surface resembling deeper injury. In the hypochondriac regions suppuration connected with the costal cartilages or ribs, simulates abscess of the liver, empyema, hydatids, diseased gall bladder, or corresponding disease of the spleen; the right or left iliac regions, affections of the cœcum or sigmoid flexure; in the lumbar regions, renal or spinal disease; in the umbilical, strumous or cancerous disease, and pelvic cellulitis, etc., may be mistaken for ovarian or uterine disease, etc. This simple suppuration in the parietes generally tends to the surface, is opened or discharged spontaneously, and in many cases does well, unless connected with pyæmia or in cachectic subjects. The sooner it is evacuated the less likely is the pus to burrow among the flat muscles and fascia of the abdomen; and even in abscesses, fæcal or otherwise, extending secondarily to the parietes, unnecessary delay is sometimes made in discharging their contents. The rule is, I believe, a correct one, to open them very early.

In the first case detailed the suppuration was exceedingly deep, not connected with the true pelvis, but behind the sigmoid flexure. It formed an opening into the sigmoid flexure of the colon; but the deeply seated position of the disease prevented an opening being made from without till the extension to the anterior part rendered the character of the disease more manifest.

In the second, suppuration beneath the quadratus lumborum was followed by pleuro-pneumonia, fæcal odour of expectoration, and fæcal pus from the abscess; contact, if not communication, with the colon; typhoid symptoms, but gradual recovery with a sinus in the loins, probably connected with a diseased vertebra or its processes. In this case a free evacuation of pus was instrumental in saving life. The diagnosis of each of these cases was obscure, but exceedingly interesting in its gradual development.

SUPPURATION EXTERNAL TO THE SIGMOID FLEXURE OF COLON. COMMUNICATION WITH THE INTESTINE AND THE ANTERIOR ABDOMINAL PARIETES.

(Reported by Mr. DYER.)

Elizabeth R., aged 39, a widow who had supported herself by dressmaking, was admitted into Guy's under Dr. Habershon's care, March, 1855. Till a fortnight before admission she had enjoyed good health, when she felt pain in the back, which extended to the shoulders and knees. The greatest pain, however, was in the course of the ilio-hypogastric nerve. These symptoms were accompanied with considerable febrile excitement.

Saline medicines with colchicum, etc., were prescribed. In a few days the pain, which had simulated rheumatism, ceased, and she appeared to gain strength under the use of decoction of bark with carbonate of soda.

On March 26, three weeks after admission, she complained of pain in the left iliac fossa, and a firm tumour about the size of a hen's egg could be felt deeply in that part. There were

no tenderness in the spine, numbness in the legs, or other symptoms of disease of the spine. An examination per vaginam was made by my colleague, Dr. Oldham, but did not give any evidence of disease of the ovary. The bowels were easily acted on by hydrarg. cum cretâ, by castor-oil, and by enemata; but this action did not affect the size of the tumour or alleviate the symptoms. The urine was normal, and there was no indication of renal disease. The pain gradually increased in severity, but was considerably relieved by the repeated application of leeches, by taking iodide of potassium, bichloride of mercury, and occasional doses of morphia. It was believed that the disease consisted in disease of the sigmoid flexure of the colon, with local peritonitis.

May 10.—The pain had returned with much severity, and hectic came on. The tumour increased in size; it could be felt extending to the quadratus lumborum; and also reached the anterior abdominal parietes, which, at the left iliac fossa, were red, œdematous, and exceedingly tender.

19th.—The bowels were acted upon three times freely, and a considerable quantity of purulent mucus discharged. The examination of this discharge could detect no cancer cells. The pain and hectic continued, the patient becoming pale and exhausted; the left thigh and leg became swollen and tender, afterwards the right; and there was excessive pain in the course of the femoral veins. Nourishment and stimulants were administered as the patient could take them. Quinine and opium, or morphia, were given.

June 8.—The inflammatory œdema of the anterior abdominal parietes had increased. My colleague, Mr. Callaway, made an incision at this part, and more than a pint of exceedingly offensive pus was evacuated. Every means were used to sustain the patient; but the discharge continued abundant, and bearing feculent odour, and her strength gave way. Her tongue remained clean and moist; but her appetite ceased, so that she became quite unable to take food. There was no pain at the scrobiculus cordis, vomiting, or thirst; but emaciation and sense of exhaustion. Bed sores formed on the sacrum; and, a few days before her death, cough, which aggravated her distress. She gradually sank, and died June 24. Inspection was made twenty-four hours after death. The body was blanched, and the lower extremities œdematous; the pleura was healthy, but the posterior lobes of the lungs were in a state of red hepatization; the heart and its valves were healthy. *Abdomen.*—The peritonæum was healthy, except in the left iliac region, where the omentum, and several coils of intestine, were adherent. In this region was an abscess, situated behind the peritonæum and fascia, and containing offensive, feculent pus; it extended to the anterior abdominal parietes in front, above to the diaphragm and kidney, and posteriorly nearly to the spine. Very careful examination could detect no disease of the ilium or vertebra, or pelvic cellular tissue. The abscess communicated with the sigmoid flexure by three small openings, in close contact the one with the other; the edges not thickened, but valvular. The small and large intestines were otherwise healthy; and the opening into the intestine was evidently secondary. The uterus, ovaries, and kidneys were normal. The stomach was of normal size; the mucous membrane pale, and had undergone degeneration. The liver was more than 5 lbs. in weight, and extremely fatty. The lower portion of the vena cava, and of the common iliac and external iliac veins, were filled with very firm, white, adherent fibrin, and the coats of the vein were much thickened.

The review of this case showed that the pain in the course of the ilio-hypogastric nerve arose from direct pressure upon that nerve by inflammatory effusion, that the tumour felt in the iliac fossa consisted of this effusion pushing forward the peritonæum and sigmoid flexure; that the subsequent symptoms arose from suppuration, and its extension in various directions inwards into the colon, leading to some extravasation of fæces and of pus into the alimentary canal and into the abscess forwards, so as to reach the anterior parietes, where it was opened,—upwards to the diaphragm, and inwards to the cava and iliac vessels, which became involved and obstructed by fibrinous material. That it did not arise from diseased bone was proved by careful examination; and it appeared probable that some accidental blow had led to this suppuration, with its fatal results, or that irritation in the intestine had led to inflammation external to it, and subsequent suppuration.

After the tumour had been felt, evidence of suppuration soon arose, and the discharge of purulent mucus showed that it had formed some connecting link with the intestine, or that there was ulceration of the coats of the intestine itself. Renal, ovarian, spinal, or parietal suppuration, or cancerous disease of the sigmoid flexure, might give rise to many of these symptoms. The absence of all indication of diseased kidney was shown in the condition of the urine. Disease of the spine was exceedingly doubtful, from the want of tenderness, numbness, and the course of the suppuration. The position which the tumour assumed and vaginal examination showed that the ovary was not involved. It appeared to arise from disease near to the sigmoid flexure, either commencing in that viscus and extending outwards, or beginning in the parietes and making its way into the intestine. It was in deciding as to which of these might be the case that the principal difficulty consisted. The discharge of purulent mucus from the intestine, and the feculent character of the pus, indicated a connexion between the abscess and the intestine; the inspection after death showed that the reverse was the case. Before death, I was led to believe that the disease commenced in the sigmoid flexure, and that the suppuration external to the intestine was secondary. It was closely allied to cases of suppuration external to the rectum, but so deeply was it situated that any exploratory incision would have been unjustifiable till there was more certain evidence of suppuration than was presented at the commencement of the disease.

ABSCESS IN THE LOINS — FECULENT-SMELLING DISCHARGE—PLEURO-PNEUMONIA, WITH FECULENT-SMELLING SPUTUM — RECOVERY.

(Reported by Mr. PENFOLD.)

T. H., aged 34, was admitted into the Clinical Ward, under Dr. Habershon's care, June, 1855. He was a man of steady, industrious habits His health was good till an attack of rheumatic fever, two years before; and at Christmas last, six months before admission, had a very severe fall while at work; he fell upon his head, and it was believed that the skull was fractured. He remained for some time in the Hospital, under the care of Mr. Birkett. His present illness commenced three weeks before admission, when, in the middle of the night, he awoke with great difficulty of breathing, respiration being accompanied with considerable distress and pain. These symptoms increased much in severity, and presented the signs of pleuro-pneumonia on the right side.

On admission he was exceedingly ill; his countenance pale, his eyes glistening, lips and nostrils contracted, the teeth covered with sordes, the tongue brown at the base and edges, the skin hot and clammy. In the chest, there was found to be increased roundness of the right side at the base, imperfect mobility, increased dulness on percussion, loss of lactile vibration, and in front, below the nipple, was a pleuritic rub. On the left side, the respiration was puerile, and, at the apices, the expiratory murmur was prolonged and coarse. The position of the heart was normal; its sounds healthy, but the precordial dulness was somewhat increased; the respiration was 26 per minute; the pulse 95, feeble and compressible; the urine was high-coloured, acid, sp. gr. 1025. His position, on lying in bed, was midway between the right side and the back, with knees drawn up, and the head thrown forward.

The prostration and typhoid state increased till June 14th, when deep-seated fluctuation below the ribs on the right side could be detected, beneath the lumbar fascia about the quadratus lumborum muscle. An exploring needle was passed, and afterwards a director, and the wound enlarged; about a pint of pus, having a strong fæcal odour was discharged, the abscess continuing to discharge freely. After the opening of the abscess, the respiration became more free, and he coughed up a considerable quantity of frothy mucus, having the same odour as the pus. His strength was sustained by nourishing food and stimulants—by quinine and opium diarrhœa was occasionally troublesome, and the offensive expectoration exceedingly distressing.

On July 2nd he had so much improved as to be able to be carried out into the open air for half an hour. The offensive character of the breath and respiration gradually subsided; healthy respiration became audible nearly to the base of the lung, and he continued to gain flesh.

In October he returned to his work, and now appears a stout, hale man; but a fistulous opening remains up to the present time, which occasionally discharges freely. In this case deep-seated suppuration took place near the quadratus lumborum

muscle, acute pleuro-pneumonia on the right side, and the most severe constitutional symptoms followed. The pus which was evacuated, and the mucus expectorated, were of a most offensive and feculent odour; but microscopical examination of the pus could not detect decided fæcal elements. Diarrhœa came on; the feculent character of the discharges slowly subsided; but the expectorated matters tried the patient much. Several facts render it probable, that the abscess was in close contact with the ascending colon; mere contact with the intestine would probably be sufficient to explain the fæcal odour; and it may be, that the contents of the abscess were partially discharged into the colon.

In the investigation of the case several modes of explanation were suggested—1. An abscess, the result of the blow; 2. Caries of the vertebra or its processes; 3. Abscess of the liver; 4. Empyema; 5. Suppuration external to the kidney, from disease of that organ.

Although there was evidence of acute disease of the chest, the abscess was evidently below the diaphragm, and probably in contact with it; there was no evidence that the kidney was affected. The character of the pus, and the absence of the elements of bile, indicate freedom from hepatic disease. It is probable that disease of the vertebra or its process had been set up by the blow.

The treatment in both these cases appears sufficiently clear, as soon as tolerably certain evidence of suppuration is obtained, to make a free outlet for the pus, and to support the patient by every means in our power. The deferring the opening of the abscess tends to increase fæcal extravasation where it communicates with the colon; and the abscess readily extends among the cellular tissue which connects the layers of fascia and muscle.

The principal interest arises from the difficulty in forming a correct diagnosis, especially at the earlier stages of this deeply seated inflammatory disease.

Medical Times & Gazette.

SATURDAY, MAY 17.

THE TRIAL OF WILLIAM PALMER.

This important Trial commenced on Wednesday morning last, and while we are going to press it still continues, and is likely to last some days. The great interest which this Trial excites it is impossible to exaggerate; and the Crown and the Prisoner have both called to their aid a host of Medical witnesses, whose evidence will bear most materially upon the question of Palmer's guilt or innocence. Our next Number will contain a full and accurate account of the evidence, more especially that of a scientific nature, specially reported; and we have no doubt, that the facts and opinions elicited will be ranked among the most instructive records which have appeared in the annals of Medical Jurisprudence.

THE UNIVERSITIES IN RELATION TO MEDICAL REFORM.

We are happy to find that the principles we advocated a fortnight since in our article entitled "A Scheme of Medical Reform," are likely to form the basis of legislation on this important subject. The Royal College of Physicians adheres substantially to the same views, and we have no doubt that they will be acceptable to the generality of the Profession. The main points involved are, the necessity of preliminary knowledge as an introduction to Professional study; the attainment of Medical and Surgical qualifications by a successive course of study and examinations; the retention of the existing grades in the Profession; and the limitation of the highest honours to those who have attained the highest qualifications while pursuing the most lengthened and most various course of study. The proposed plan retains the rights of the Colleges as licensing bodies, and we conceive that no cause has yet been shown why those rights should be abrogated.

We are sorry to learn, however, that an opposition to this scheme has been threatened from a quarter from which we should, on the contrary, have expected the warmest support. We find that the Universities are opposed to the power which is now held, and which will be held hereafter, by the Medical and Surgical Colleges, of granting licences to practise. As this opposition on the part of the Universities is founded upon a total misapprehension of the relative functions of the two kinds of corporation, we think it right to offer a few remarks upon the subject, with a view of clearing away some of the difficulties which seem now to exist.

The Universities are seminaries of instruction in all branches of Art and Science, and their internal affairs are regulated by persons who are chosen from the number of their alumni on account of their academical distinctions. The wisdom of our ancestors has sometimes localized these seats of learning in spots which are secluded from the busy haunts of men, and which are, therefore, favourable to abstract study and meditation. Medicine, although it forms a portion of the instruction given within these institutions, is by no means the principal or the prominent pursuit of the students; and it cannot be asserted, in the wildest flights of imagination, that the Universities in any way represent the Medical Profession. The government of the Universities is intrusted to Clergymen, to Lawyers, to Mathematicians, to Philologists; and, although the Medical element may find its way into the Councils, it undoubtedly does not in general occupy a prominent place.

The Colleges, on the contrary, are devoted exclusively to the cultivation and promotion of Medical and Surgical science; they are situated in large towns or cities, where there exist abundant materials for the acquisition of practical knowledge; and those who regulate their internal affairs are the men who are actually engaged in ministering to the Medical wants of the community. It is perfectly clear, therefore, that the Colleges represent the actual wants of the Medical Profession, while the Universities represent only the abstract interests of learning generally. What would be thought of the Universities if they insisted upon the right of their alumni to practise at the Bar without the usual formalities at the Inns of Court? What would be thought if the Universities disputed the right of the Bishops to ordain for the Church? Nay, why should not the Universities give away commissions for the Army? Yet monstrous as any of these propositions would be considered, they are not a whit more absurd in reality than the claim of the Universities to grant licences to practise in Medicine and Surgery; a claim which would probably never have been made, had not some old statute or charter, given, in certain cases, a colour to the pretension.

In a few of the Universities it undoubtedly happens that at certain periods, and under the influence of some distinguished Professors, the Medical section occupies a prominent place, as for some time has been the case with the University of Edinburgh; but in the English Universities of Oxford and Cambridge, the number of Medical Students is exceedingly small. The Universities of London and of St. Andrew's, in Scotland, have each a medical examination, but no medical school, and the University of Durham has no medical element at all. Even the lists of the University of London, the medical graduates of which hold a very high rank, are composed chiefly of lawyers and dissenting clergymen; and in any trial of strength among the different Faculties, that of Medicine would certainly be out-voted. It cannot, therefore, be maintained, that the Universities reflect the opinions, or

uphold the rights, or represent the wants of our Profession; nor can it generally be asserted, that even the examiners at these seats of learning are always men of large practice and experience. The government of the Medical Colleges, on the other hand, is conducted by men in actual practice, and who are, therefore, the best qualified to grant licences for pursuing the Profession which they themselves are in the daily habit of exercising.

While, therefore, we feel that men will always resort to the Universities for the degrees and honours which those institutions are capable of bestowing, and while we think that every encouragement should be offered for their doing so, we are equally convinced that the licences to practise should be granted by those bodies to which the power has long been legally confided. As we have urged on former occasions, the Medical practitioner should pass through a full career of study, both theoretical and practical; but we conceive that the final examinations which are to launch him upon the public as a duly qualified Physician or Surgeon, should be conducted by men who are themselves in actual practice. The Universities ought not to be the rivals, but the handmaids of the Colleges.

We should very much regret to find that the University of London is opposed to the present plan of Medical Reform, which we believe has the sanction of the Government. While we cheerfully concede to that University the very high merit of having proposed and carried out the most elevated course of Medical Education yet devised, we cannot forget that this successful issue has been in great measure achieved by the liberal annual grant of £5000 accorded to it by the nation. If any rivalry should be attempted between this University and the Colleges, it would be only just to put them all upon the same footing, either by withdrawing the annual grant, or by giving the same amount to each of the Colleges, especially to the College of Physicians, which, without any Parliamentary grant at all, has for many years upheld the dignity of the Profession, and promoted the best interests of Medical Science.

We fully admit the principle of so subsidizing all the Colleges and Universities that the income of the Corporations and the salaries of the Examiners shall be in no way dependent upon the number of the successful candidates; and in any new measure of Medical Reform, we hope that some such arrangement will be made; but we cannot help remarking upon the monstrous anomaly of securing to one favoured Institution a perfect degree of independence at the expense of the nation, while all other similar establishments are either left to depend for their emoluments upon the licences which are granted, or are doomed to dignified poverty as the result of their scrupulous honesty.

On the whole, we feel assured that, on reflection, the Universities will view this question in its true light, and that, reserving to themselves the privilege of educating, and educating highly, the members of the Profession, they will forego the right, which it is doubtful whether they ever legally possessed, of granting licences of practice. The latter prerogative justly belongs to the different Colleges of Physicians and Surgeons; and they cannot relinquish it without perpetuating the discordant system, or rather want of system, of which we now universally and very justly complain.

REVIEWS.

An Inquiry into the Nature of the Simple Bodies of Chemistry. By David Low, Esq., F.R.S.E., etc. Third Edition. 8vo. Pp. 386. Edinburgh: 1856.

The announcement, within a few years, of the publication of a third edition of a work of so purely speculative a character as this by Mr. Low may of itself be regarded as a sufficiently recommendatory notice. Furthermore, however, the illustrious Berzelius having considered Mr. Low's views as deserving of serious consideration, is conclusive as to their claim to regard. These we may sum up in a few words. Mr. Low argues, that we have no proof that the bodies which we now regard as simple or elementary bodies are such, beyond the fact that they have not yet been decomposed; that the same has been said of bodies formerly regarded as simple, but now proved to be compound; that we ought rather to assume a body to be compound until it has been proved to be simple. "Chemists," Mr. Low observes, "have been led to suspect the compound nature of several substances still enumerated among elementary bodies."

Mr. Low enunciates the proposition, that all other bodies which are termed simple are derived from two of their order, hydrogen and carbon, or from elements of which these are formed. In elaborating the proof of his proposition, he examines the doctrine of chemical equivalents and formulæ, gives the leading characters of each of the sixty alleged simple bodies, and dwells at great length upon the products of organized bodies.

How far these opinions may ultimately come to be received among Chemists, must be shown in the course of events; it is, however, no trifling cause of satisfaction to the author, that they have been favourably received by the French Chemists, headed by M. Dumas, and that Dr. Faraday has "announced the intention of instituting experiments for the purpose of discovering, if possible, the composition of some of these seemingly intractable substances."—Preface, p. viii.

We may add, that Mr. Low's work is full of interest to the lovers of philosophic research, and must prove attractive to all who care to watch the progress of science towards simplicity,—a striking feature, which characterises this rapidly progressive age, in its physical investigations.

A Manual of Photographic Chemistry, including the Practice of the Collodion Process. By Frederick Hardwich, late Demonstrator of Chemistry in King's College, London. Second Edition, small 8vo, pp. 344. London, 1855.

The first edition of this work was published in March, 1855, the second in September of the same year. So rapid a sale proves the want of a manual of this kind, and shows also, that the want is herein supplied. After such a warranty further commendation would seem superfluous. We may, however, add, that we have been much pleased with the very lucid and simple manner in which the processes of photography are explained, and their chemistry rendered intelligible. To all who cultivate the fascinating art of photography with any higher than merely fashionable motives, Mr. Hardwich's Manual will be found a truly scientific assistance.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, May 5, 1856.

An interesting paper, from the son of Professor Milne-Edwards, has been presented to the Académie des Sciences. Many Surgeons had already proposed to give some calcareous salts to patients labouring under a slow consolidation of fractured bones. M. Gosselin, Surgeon to the Cochin Hospital, in six cases of fractures of the arm employed phosphate of lime with decided advantage. M. Alphonse Milne-Edwards has made many experiments, on dogs and rabbits, to ascertain positively the degree of influence of phosphate of lime upon the speed of the formation of callus. In all these experiments it has been found, that callus is formed quicker in animals which have taken phosphate of lime than in others which have not taken this salt. Therefore, it seems that it might be useful to add a certain quantity of phosphate of lime to the food of patients with fractured bones.

M. Maisonneuve, a very bold Surgeon,—perhaps, rather too bold,—proposes to take away the maxillary bones when there are deeply-seated tumours, which cannot be reached otherwise. In a second paper presented to the Académie des

Sciences, he relates two successful cases of operations for such tumours, in one of which he took away a part of the inferior maxillary bone, although this bone was healthy. In the other case he disarticulated this bone on one side. His conclusions are, 1st. That the disarticulation of the infra-maxillary bone renders possible the extirpation of certain deep-seated tumours in the pharynx, the tongue, and the palate, which could not be reached otherwise; 2. That Surgeons are authorized to perform such an operation, even in cases where this bone is not at all altered, as soon as the life of the patient is in danger in consequence of the presence of the tumours.

In a very interesting paper, read at the Académie de Médicine, M. Ménière points out, as a common cause of congenital deafness and dumbness, intermarriages between relatives. His situation as the Physician of the Hospital for the Deaf and Dumb has given him ample opportunities to ascertain this law. He states also, that out of 100 deaf and dumb, between ten and fifteen years of age, there are about 66 who have had the power of hearing for a certain number of years; 33 are born more or less deaf and dumb.

Professor Colin, in a paper read at the Académie de Médicine, states, that there is always a small quantity of glucose in the chyle of animals, at the time of digestion. He tries to prove, that this glucose is absorbed in the bowels, in which it is formed from some elements of the food, and even from animal food.

In a recent communication to the Société de Biologie, Dr. Brown-Séquard points out as a symptom of alterations limited to one lateral half of either the spinal cord, the medulla oblongata, or the pons Varolii, the existence of a notable difference in the degree of warmth of the two sides of the body, and particularly of the hands and feet. On the side of the alteration the temperature is more elevated by many degrees than on the other. In animals, after a section of a lateral half of the spinal cord, the difference may be very considerable between the two sides of the body. In one case, where he had divided, with the assistance of Dr. Carmona, the left lateral half of the spinal cord near the medulla oblongata, the temperature between the toes of the left posterior limb of the animal, was found, a few hours after the operation, to be 36 or 37 degrees (Fahrenheit's scale) above the temperature of the toes of the other posterior limb. But such an enormous difference has been observed only once out of many experiments. Usually the difference is from 8 to 15 degrees Fahrenheit.

A case of disease of the supra-renal capsules, with bronzed skin, has been communicated to the Société de Biologie by M. Ferréol. The skin, a part of which was shown to the Society, was quite dark, resembling that of a mulatto. The capsules had entirely lost their structure. In them there was almost nothing but fat and many small abscesses. The prominent symptoms, which Dr. Addison has recorded as existing usually in cases of diseases of the supra-renal capsules, existed also in the case of M. Ferréol.

PROVINCIAL CORRESPONDENCE.

IRELAND.

(From our Dublin Correspondent.)

Dublin, May 5, 1856.

I must depart somewhat from regular chronological order in my reports of the proceedings of the Pathological Society, to give a brief account of the awarding of the Gold Medal of the Society, at its final meeting for the past session, to the writer of the best essay on the subject I announced in a former letter—the "Chronic Diseases of the Liver." On this occasion four essays were sent in with fictitious signatures. The successful essay was that signed "Hepaticus," the accompanying sealed envelope containing the real name, having been opened in the presence of the Society, the Author, Mr. Charles James Egan, was called forward by the President to receive the honour, before a very large meeting of the members. The President then announced that, in consequence of the merit of another of the essays, bearing the signature of "Spigelius," the Council had determined on conferring a Silver Medal on the writer, who was ascertained, in like manner, to be Mr. Thomas Fitzpatriek. The competition for the medal is restricted to those Students who are, under the rules of the Society, admitted to attend the meetings. The President not only spoke in high terms of the scientific character and the research which both these essays displayed, but complimented the authors on their excellence as specimens of literary composition. It will be remembered that last year no medal was conferred; and the President, in alluding to the observations of his predecessor in the chair, Dr. Adams, on that occasion, expressed the gratification of the Council that the advice then given had been followed by such good results. The proceedings of the day excited great interest, and the conferring of these honours on two Students in the presence of so many distinguished members of our Profession, cannot but have the best effect on their future career. The Society then adjourned until the commencement of the next winter session.

A meeting of the Obstetrical Society was held on the evening of Friday, April 4, Dr. M'Clintock, Master of the Lying-Inn Hospital, in the chair. Dr. George Montgomery, Assistant to the Hospital, communicated the history of a case of triplets which had recently occurred in that Institution. The principal points of interest in this case were, that the three children presented differently: the first with the head, the second with the arm, and the third with the breech; and that the second underwent "spontaneous expulsion" in the manner described by the late Dr. Douglas, in contradistinction to Dr. Denman's "spontaneous evolution," the presenting arm not in the least degree receding during the time occupied by the descent of the breech. The three children continue up to the present time alive and well; their aggregate weight at birth was 14 lbs. 14 oz. avoirdupois. Dr. M'Clintock narrated the particulars of a case of complete occlusion of the vagina that had recently presented itself in the Hospital in a primiparous woman. The vagina appeared to terminate in a *cul-de-sac* about 1½ inch from its orifice. After the labour had continued for some hours, a crucial incision was cautiously made with a guarded bistoury through the obstructing part, to allow the passage of the head. The woman made a good recovery. There was a very small valve-like opening in the membrane which occluded the vagina; but this was of so small a calibre as not to admit of the passage of an ordinary probe without causing some slight laceration.

On Friday, the 25th, Professor Davy brought under the consideration of the scientific meeting of the Royal Dublin Society some simple methods of detecting arsenic and its compounds, whether in the solid or fluid state, or when mixed with organic substances, etc. He referred to the common modes of reduction, the methods of Fresenius and Babo, of Reinsch, Marsh, etc.; and then made some very simple experiments (which were performed in a few minutes), illustrative of a simple electro-chemical method of detecting arsenic, etc., which consists in placing it, in either a solid or fluid form, on a surface of platinum, adding a drop or two of strong hydrochloric acid, and bringing a small slip of foil or sheet zinc into contact with the materials, when the arsenic will be precipitated on the platinum in the metallic state, and will strongly adhere to it, exhibiting colours from partial oxidation like those observed on heated steel. After washing and wiping the platinum, the heat of a candle is sufficient to remove the arsenic which rises as arsenious acid while the characteristic garlic odour is produced. In this way, with the greatest facility, arsenic may be obtained from a solution of arsenious acid in cold water or other fluid in quantity so minute as to be wholly inappreciable by the most delicate balance. In cases where the quantity of arsenious acid in solution in mixed fluids may be extremely minute, the latter should be concentrated by boiling before the hydrochloric acid is added. The presence of sulphuric acid does not interfere with the results, and it may be employed to decompose animal and vegetable matters previously to the application of the method, which renders unnecessary the tedious modes of separating the arsenic by sulphuretted hydrogen and subsequent reduction, etc. The acids and zinc employed should, of course, be free from arsenic.

At the same meeting Dr. J. R. Kinahan read a most interesting paper on Specimens of Australian Crustaeea, presented by him to the Society.

I have had an opportunity of perusing Mr. South's "Plan

for the Consolidation of the Dublin Hospitals," contained in an appendix to the "Report of the Commissioners appointed to inquire into the Hospitals of Dublin." I do not think it necessary to bring the details of Mr. South's project before your readers, inasmuch as it emanates from this gentleman alone, and has not received the sanction of the Commission of which he was a member. As an example, however, of the wholesale and complete subversion which he would make in the existing state of things here, I may mention that he suggests the possibility of converting the Dublin Lying-in Hospital into a General Hospital, and of supplying its place by appropriating a few beds in each of the General Hospitals to the diseases peculiar to women, while the lying-in patients, he recommends, should be attended at their own homes; thus depriving the pupils of the advantages they at present enjoy, —of attending a large number of midwifery cases in a suitable hospital, under the immediate superintendence of competent teachers, and of witnessing, under clinical instruction, the daily progress of so many parturient women, in every stage of convalescence, and of observing every variety of puerperal disease. It is needless to say, that such opportunities as these for the acquisition of obstetric knowledge could never be supplied were the patients confined at their own homes. But for what purpose is this change to be made? Is it that the deeds of good men may *not* live after them, nor serve as beacons to posterity, that the name of Bartholomew Mosse is to be thus blotted from remembrance, and the noble institution founded, by his humanity and his munificence, is to be diverted from its purpose? This great man's sacrifices, and the benefits he has conferred upon his fellow-creatures, have been well described by the writer of the "Irish Medical Directory" in the following words:—"Struck by the misery and wretchedness that met his eye in his charitable visits to poor parturient women, this disinterested philanthropist conceived the noble idea of founding an Institution capable of freely receiving within its ample walls all who might apply, having poverty for their plea, and the pangs of approaching childbirth as the ground of their request. With an ardour of benevolence rarely to be met with, and a spirit of genuine philanthropy seldom exceeded, this Christian benefactor devoted to this favourite object his time, his talents, his labour, his private fortune, (even to the neglect of a competency for himself and his children,) and, finally, his life. Of him it may be truly said, in the beautiful language of Grattan, "in feeding the lamp of charity, he had exhausted the lamp of life." The inscription that records his goodness (a proud record of the benevolence of the Medical Profession) is couched in these simple words—

Miseris Solamen. Instituit 1757.

This good man's god-like intentions, so far as giving shelter to destitute women in Nature's most trying hour, are scrupulously adhered to, both as regards the letter and spirit of his instructions. In no institution in the world is there more of substantial comfort, and even luxury, considering the previous circumstances of its inmates, than in this. Its origin is a noble instance of goodness, that puts to shame the studied benevolence of ordinary men, although a melancholy example of the effects of self-devotedness to the public weal. In a kingdom distinguished for its benevolent institutions, and where every malady which "flesh is heir to" has its appropriate asylum, this decidedly stands preeminent and alone. Like the Nile, it pours health and vigour over a district the population of which would otherwise droop and die beneath the inclemencies of Nature (a). A reference to the evidence taken before the Committee of the House of Commons upon the Dublin Hospitals, (pp. 195 *et seq.*,) will show that these statements, as to the efficiency of the Institution, have not been overdrawn. Since its foundation upwards of one hundred and eighty thousand women have been received within its walls. Or, is it because its beneficial effects are felt, in every quarter of the globe, in the sending forth of sound and well-educated obstetricians, that it is to be doomed to destruction? But sure I am, that the voice of public opinion will never allow the obtrusive hand of reckless innovation to commit such a sacrilege, and I trust that, should the world last long enough, the century which this Hospital has just completed shall be but an item in the period of its useful career.

(a) Irish Medical Directory for 1843, by Henry Croly, M.D. Dublin: Curry and Co. 1843.

GENERAL CORRESPONDENCE.

ERGOT OF RYE IN MIDWIFERY.

[To the Editor of the Medical Times and Gazette.]

Sir,—After the general opinion I gave of the Ergot of Rye in my last communication to your Journal, it will not seem strange that I should consider it as applicable to a limited range of cases only. Indeed, my conviction is, and has long been, that the midwifery Practitioner who uses it most cautiously will have fewer regrets and anxieties to suffer, than he who indiscriminately gives it, in every case of slow labour, merely because his patience is exhausted, or his patient may be clamorous to have something done for her. My experience of the ergot leads me to lay down as salutary rules for its exhibition the following conditions, viz.:—

1st. That the os uteri be largely dilated and the soft parts in general be well relaxed.

2nd. That the membranes be whole, and the liquor amnii not escaped. And

3rd. That the capacity of the maternal pelvis be complete and without deformity.

In short, the labour in which the ergot is to be employed should want nothing to render it all that can be desired; but more effective contractions of the uterus may be obtained by various means besides the administration of this medicine.

If anything else be required, the ergot of rye is not the appropriate remedy; and as it has certain grave drawbacks connected with it, the case ought to be carefully considered in all its circumstances before the ergot be administered. For, if given before the os uteri is dilated to at least the size of a crown, and in a dilatable state, the great probability is, that the fibres of the os, and the adjacent lower portion of the uterus, will become contracted in a transverse direction, and so the labour be delayed rather than accelerated; the membranes will become prematurely ruptured, the liquor amnii escape, and the life of the child be endangered. If given in a rigid state of the soft parts, the same evils are likely to follow; and if used when the pelvis does not afford free room for the easy passage of the child, you will only induce pain insufficient to force that passage, and render the rupture of the uterus probable. The frequent appearance of still-born children after the ergot has been used, is a fact I believe admitted by all men of experience upon the subject, and is, I think, easily accounted for by the fact of the unnatural and severe pressure which is made upon the child by the uterus, especially after the escape of the liquor amnii, while contracting under the influence of the ergot. The spastic rigidity into which the uterus is thrown, must interrupt, and frequently altogether stop, the circulation of the blood through the placenta, and hence, as proved also by the blue colour of the children born under such circumstances, the necessary purification of the blood through that organ during fœtal life is suspended, and the death of the child occurs as the result. It seems entirely unnecessary to attribute the feebleness of the life, or the entire destruction of the life of such children, to any poisonous influence of the ergot, as we have such clear proof, both from the well known violence of the uterine pressure, and the blue colour of the children, that the obstructed circulation of the blood alone will account for all the phenomena. That many infants, therefore, have been sacrificed by this cause, I have no doubt whatever, and hence I appeal the more seriously to the Profession, to ponder this point of practice, and to do it without delay. For my part, were I able to resume Professional duty, which I cannot expect to do, I should be very chary of this drug in all, except most decidedly such cases as those I have already indicated, believing that a safe and efficient substitute can easily be found free from this serious drawback.

As to the use of the ergot in *post partum* hæmorrhage, I have little experience. I will only say, that, finding it to exert so partial and uncertain an influence in contracting the uterus, I have not been in the habit of trusting cases of such importance to it, but have employed the other well-known agents, upon which more trust could be placed, as such cases do not admit of mere temporizing expedients, but require prompt and efficient instrumentality. I am, etc.

Colchester, March 6, 1856. David Morris.

P.S. These views will, doubtless, not receive the concurrence

of many gentlemen with whom I know the ergot is a favourite, and who show their attachment to it in a similar way to the late Dr. Lowder with his lever, who always carried it about with him in a pocket made for the purpose, like the carpenter with his rule, and who was so adroit and secret in his use of his favourite instrument, that he often slipped it from his pocket and applied it, before he was known to be using any instrument; but I give my conscientious opinion of this drug, without any conscious prejudice against it, believing that neither the Profession nor the public will suffer any real loss from its entire disuse.

SANTONIN AS AN ANTHELMINTIC.

[To the Editor of the Medical Times and Gazette.]

Sir,—Having had several cases during the last six months (among the poor) of children suffering from worms, I was induced to try the effect of santonin, and from the very satisfactory results which have arisen from its use, I think it may be interesting to your readers if I give publicity to the same.

Among the first cases treated, was that of a child of two years of age, to whom I gave three grains of santonin, followed in two hours by an aperient powder; this child voided the next morning, at one time, thirty-seven worms, some of them a foot in length, of the lumbricoid ascaris kind. Two children in another family were similarly treated, and between forty and fifty worms came from each; again, in a family of four, 124 worms at one time, and many more afterwards, followed the aperient, each child having taken one dose of santonin. I could instance many more cases which have been relieved by this medicine. After the expulsion of the worms, I give a tonic mixture, containing the muriated tincture of iron and muriatic acid, and change the diet from a vegetable one to that of meat and bread. My cases all do very well.

I should state that santonin is a medicine that may be administered with perfect safety. I give it in its crystallized form, between bread and butter, and two hours after it a dose of calomel and jalap; in some cases an interval of twenty-four hours occurs before the worms are vomited.

The persons who reside in the locality in which I have met with these cases, are very poor, and, from the high price of bread this winter, have had recourse to vegetables of the commonest description, as an article of food, which will account for the presence of worms in the alimentary canal.

I am, &c. George G. Perry, M.R.C.S. Eng., L.S.A.

Droxford, Hants., May 1, 1856.

OPERATIONS IN CONVERGENT STRABISMUS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Shortly before my departure for the East, I was consulted, by a gentleman who had been operated on some time previously for convergent strabismus, but who now was affected with a slight divergence of the eye operated on; this, together with the retraction of the caruncle, gave to this eye an appearance of rotundity and fulness not possessed by its fellow, and the symmetry of the two was thus impaired. The patient could bring the cornea into a position equidistant from the two canthi, and could even invert it slightly; and the eversion appeared to be due rather to the new insertion of the internal rectus having taken place too far backwards, than to any hypertrophy, or over-action of its antagonist. Under these circumstances I was unwilling to run the risk of increasing the fulness of the eye by dividing its abductor muscle, and was even doubtful how far such an operation would rectify the eversion. I accordingly pinched up a fold of conjunctiva with the subjacent fascia, internal to the cornea, and snipped it off with a pair of scissors, trusting that the contraction which would ensue from the healing of the wound might be sufficient to rectify the slight divergence. In this hope I was not disappointed, the greater fulness of the eye disappeared, the caruncula lachrymalis was drawn more towards the cornea, and the power of inverting the eye was increased. A small granulation made its appearance in the course of treatment, which required touching three or four times with the nitrate of silver. A month after the operation none but an ophthalmologist would have discovered any difference between the two eyes, and the patient took leave of me highly gratified with the result.

It is seldom one is called upon to remedy so slight a defect as that for which this patient consulted me. In more marked cases of abduction, following a too free division of the contracted parts in convergent strabismus, some such operation as that so ingeniously devised by Mr. Critchett must be performed; but I am of opinion that many cases, even of primary strabismus, where slight, might be remedied by such an operation as that described in this paper. I am, &c.

2, Storey's-gate, St. James's park. C. Holthouse.

THE VACCINATION TRADE.

[To the Editor of the Medical Times and Gazette.]

Sir,—Can you,—if you can, will you—suggest some means of preventing a very gross impropriety. Many of the Poor Law Medical Officers in this neighbourhood are in the habit of calling at the houses of people, except those of the highest rank where they dare not intrude, and demanding as a right, leave to vaccinate their children.

I have written to the Board of Guardians, and they have issued instructions to their vaccinators not to call at private houses, and I have addressed the Poor Law Board, who say that it is no business of theirs.

If desirable, I will send you my correspondence with these two bodies. I am, etc.,

May 12, 1856

I enclose my name and address.

BETHLEHEM HOSPITAL.

[To the Editor of the Medical Times and Gazette.]

Sir,—As I have ceased to be officially connected with Bethlehem Hospital, I hope I may have credit for speaking disinterestedly of its management. I am impelled to ask your permission to say a few words on this subject, on public grounds, in answer to a leading article which appeared in the last number of your Journal. I have no purpose of my own to serve, and, personally, have no reason to regret the consequences of the revolution which, four years ago, swept over that ancient foundation. I cannot but feel a deep interest in an Institution in which I spent so many of the best years of my life as its principal Resident Officer, and to which I am indebted for my experience. I would gladly endeavour to disabuse the public mind of an unreasonable prejudice, which, to my own knowledge, deprives many of the great blessings which it is in the power of that Hospital to dispense. It has occurred to me, in the course of my practice, to recommend the friends of patients whose means were limited, to avail themselves of the advantages which are there offered; but I have found a repugnance which I could not overcome, and which, it is to be feared, will for some time yet continue to operate in keeping away a considerable number of most deserving persons, who could nowhere else be so well cared for. The old adage, "Give a dog an ill name," etc., has been painfully illustrated in the case of Bethlehem, which, whatever its old defects, must now be admitted to be one of the first, if not *the* first Institution of the kind in the world. The confidence of the public was so shaken by the reports of cruelty to patients, that, although the whole staff has been re-organized, although thousands have been lavished upon the building, to furnish it with every means of comfort and convenience, and it has become, as you truly remark, an ornament to the metropolis; it has not recovered its good name, and its noble wards are scarcely half filled; and this, not from any diminution in the numbers of those eligible for admission, for the County Asylums are full to overflowing, and many seek in vain for admission into them. Surely, then, it will be rendering a service to humanity to remove a prejudice which so seriously interferes with the usefulness of this excellent charity, and deters hundreds from seeking its hospitable shelter. It is said that the personification of evil is not so black as he is painted; and now that the storm, which was unintentionally raised, as to the alleged mal-practices in Bethlehem, has subsided, and people are able to look calmly into the facts, the question may perhaps be asked without provoking a hasty and angry reply, Was Bethlehem really so bad as was represented? That the management was in many respects bad, and the building defective, and that both have been very greatly improved under Dr. Hood's superintendence all must acknowledge; but Bethlehem was not the abode of

abject wretchedness which has been represented, nor can it be said to have continued, much less exaggerated, the miseries of the old asylums. In support of this position I may remark, that many of the principal improvements to which you refer as novelties, were made some more than ten years ago, and others commenced in the days of the old Medical staff. For instance,—the same billiard-table which now affords recreation for the patients, has been in use these twelve years. Pianos were not confined to the women's side of the Hospital, even in that supposed dark period of its history; and as regards the new windows, if anybody deserves any credit for them it is myself, for they are my own invention. The drawings were made at my own expense, and above a hundred of the windows were fixed while I remained in office. A description of this window was published in the *Psychological Journal* for January, 1851, and it has since been adopted at St. Luke's, and also on the Continent. Again, so far from the miseries of the old asylums having been continued in Bethlehem, it is but an act of simple justice to the late Medical Staff, including my lamented friend, Dr. Monro, and my friend, Sir A. Morison, to record the fact that, during the last few years of their connexion with the Hospital, in addition to many material improvements, mechanical restraint was entirely abolished, and, what is more important than all, a larger number of patients were discharged cured than at any other period in the history of that Institution, or of any similar Institution, throughout the world. Granting, then, that abuses existed, that the march of improvement was slower, and that individual instances of misconduct on the part of servants were less rare than now, I hope I have succeeded in showing that Bethlehem was not so bad as was generally supposed, and that it has never been so far behind similar Institutions that it should be shunned. The dark side only of the picture was presented to the public, but nothing was said or known of the warm acknowledgments of many a grateful heart, which it was the happiness of the Medical Officers so commonly to receive from those who could appreciate the anxious care which had been bestowed upon them in the time of their greatest need. Even now I frequently meet with kind expressions from former patients of Bethlehem who chance to fall in my way; and it is a remarkable fact that, in no one instance, have I found the contrary feeling on the part of those who were resident there during my tenure of office.

In conclusion, I would repeat that the object of these remarks is in the interests of humanity, to remove an unreasonable distrust of a valuable Charity, in which the sphere of usefulness is so seriously restricted, and which is peculiarly suited to the wants of a large class of respectable patients with very limited means, for whom no other provision is made.

I am, &c. WILLIAM WOOD.

54, Upper Harley-street, Cavendish-square,
May 12, 1856.

WASHING THE STREETS *versus* WATERING.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the *Medical Times and Gazette* of last week you published a letter from a Medical Practitioner residing in a seaport town, in which he states that the use of sea-water for the purpose of watering the streets had been found unwholesome during the cholera year, and that consequently the commissioners had determined henceforth to use fresh water for that purpose.

I can readily believe that sea-water used to water the streets might be mischievous. Look at the condition of the streets of most towns! their surface is very imperfectly cleansed, and is loaded with horsedung and other animal and vegetable refuse; and when this becomes dry and dusty in the summer months, it is wetted and converted into mud. We talk of laying dust; but town dust will not be laid. Certainly by the present watering process we do not inhale horsedung in the shape of dust; but it assails us, as it lies reeking on the pavement, with sickly odours, that are probably much more unwholesome.

Now, so long as water is used for this purpose, by all means let it be fresh. Sea-water may introduce some new element of unwholesomeness, especially if taken from a sluggish pool or estuary.

But I conceive that the use of water advocated in your pages is of a far different and more liberal sort. You evidently contemplate that the streets shall first of all be swept as clean as possible, and then that the surface shall be *washed* with a copious stream, sufficient to carry off any remaining impurities into the sewers, and to leave the streets as sweet and clean as after a heavy thunderstorm.

The use of water in these two modes is absolutely different. In the present mode, the water is used to convert dry dirt into wet dirt, and is left to evaporate till the stinking mud again becomes stinking dust. In the other mode, the water, with any residual impurity, is immediately drained off.

I am, etc.

Curzon-street, London, May 13, 1856. ROBERT DRUITT.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, APRIL 22, 1856.

CÆSAR HAWKINS, Esq., President, in the Chair.

ON THE STRUCTURE AND NATURE OF THE SO-CALLED COLLOID CANCER.

By SEPTIMUS W. SIBLEY,
Medical Registrar to the Middlesex Hospital.
(Communicated by J. M. ARNOTT, F.R.S.)

This paper was accompanied with many illustrations, and an analysis of nine cases of colloid cancer observed by the author, giving an account of the age, sex, history, progress, result, and post-mortem examination in each. It gave a very minute description of the structure and nature of the disease, more especially of the characters and development of the membranous stroma and its contents, both of which had been indicated, but not fully described, by previous authors. Having given a minute account of the mode of origin and development of colloid, with an examination of the question as to its relation to and association with cancer and tubercle, the author drew the conclusion, that, as far as could be judged from the cases detailed by him, colloid was a disease perfectly *sui generis*, neither of a cancerous nature, nor frequently associated with cancer, and concluded with advocating the propriety of the early removal of the disease when practicable, inasmuch as, if not radically cured by operation, there was abundant evidence that colloid was slow to return after excision.

The President asked the author whether he had examined the difference between the solid materials of the ordinary cystic disease of the breast and those of the so-called colloid disease, in the later stage.

Dr. Sibley said he had frequently made the examination, and he could see no resemblance in the two structures.

The President said he had a patient under his care on whom, during the last eighteen years, he had operated twelve or fourteen times for disease of the breast. The disease was at first of the ordinary cystic kind; year after year tumours continued to form in the cellular tissue, varying considerably in size, and presenting no difference in texture from those which were first detected. It could hardly be called colloid disease, nor could it, appearing time after time, well be regarded as cystic.

CASE OF FRACTURE OF FOUR CERVICAL VERTEBRÆ, WITH DISLOCATION, PRODUCED BY SLIGHT AND UNUSUAL CAUSE, AND RESULTING IN IMMEDIATE DEATH; WITH NOTES OF A CASE OF FRACTURE OF THE OS CALCIS.

By GEORGE GREEN GASCOYEN, M.R.C.S.,
House-Surgeon to St. Mary's Hospital.
(Communicated by SPENCER SMITH, Hon. Sec.)

This paper was accompanied with the pathological preparation of the parts. The interest of the case lay in the great amount of injury produced by a slight cause. There was fracture of the posterior arch of the atlas, through the laminæ of the second, third, and fourth cervical vertebræ, directly behind the articulating processes, completely separating them from their respective bodies, in addition to which the laminæ of the third and fourth on the left side were comminuted.

There was partial dislocation of the third vertebræ forwards; the posterior atlo-axoid ligament was bruised, and in parts disorganized; the ligamentum subflavum was torn away from the second vertebra. There was effusion of blood into the areolar tissue between the bones and the membranes of the cord from the first to the fifth vertebra inclusive; the posterior common ligament was much stretched with a longitudinal rupture of an inch in length, opposite the second and third vertebræ; while the cause producing all this amount of injury was the forcible twisting of the head a few times from side to side, the sufferer holding his head in a butting position, with his hat on, while his friend, who caused the mischief, forcibly rotated it by the aid of the brim. The author, who had taken great pains to convince himself that this account of the accident was the true one, gave a minute description of the relations of the bones of the spine when placed in the position described, and of his view of the cause and progressive stages of the injury, quoting in corroboration many sources of information, the case, however, being in its details quite a solitary one. The notes of the fractured os calcis the author stated he was induced to lay before the Society, in consequence of the statement of eminent authorities, (Malgaigne and others,) to the effect that the calcaneum, when broken by direct violence, is always crushed, and that the fracture is always situated behind the astragalus; whereas, from the seat of the crepitus, and the deposit of callus after the injury, it was evident in this case that the anterior third of the bone was separated obliquely from above downwards, from the posterior two-thirds—that is, in front of the larger articulating facet for the astragalus.

Mr. Ure bore testimony to the accuracy of the details related by the author.

Mr. Moore said he had met with a case of fracture of the os calcis similar to that related in the paper. It presented but little difficulty, and healed readily. As to the other case he would ask the author what was the condition of the bones after death—whether there was any unnatural thinness or other defect which would account for the great amount of injury stated to have been produced.

The Author said the bones were not all examined, but the body was that of a finely grown man, presenting no external signs of any unnatural thinning of the bones.

The President mentioned a case of fracture of the os calcis, attended with much laceration and subsequent exfoliation. The patient recovered, and had very good use of his ankle, so as to be able to walk with considerable firmness.

The Society then adjourned.

EPIDEMIOLOGICAL SOCIETY.

Monday, May 5, 1856.

Dr. Babington, President, in the Chair.

Dr. M'William read a most interesting and elaborate paper

ON THE GEOGRAPHICAL DISTRIBUTION OF HEALTH AND DISEASE, IN CONNEXION CHIEFLY WITH NATURAL PHENOMENA.

By ALEXANDER KEITH JOHNSTON, F.R.S.E., etc.

The subjects of this important communication were illustrated by a large and beautifully coloured map, upon which were delineated the various groups of diseases prevailing in the different portions of the globe, the region of each group being marked by its particular colouring. The map also exhibited equal annual summer and winter isothermal lines; lines pointing out the march of cholera from east to west; lines indicating the foreign stations of the British Navy; the zones of diet; diagrams showing the proportions of deaths from consumption in different quarters of the globe; the attacks of rheumatism among the troops on different stations; and the comparative value of human life in different countries, and in cities and towns. [The map, and the paper in a more extended form, will appear in a forthcoming edition of Mr. Keith Johnston's "Physical Atlas."] The author commences by observing, that in the investigation of the extent to which the human family is affected in the enjoyment of health and the preservation of life, by physical or natural causes, statistics form the safest guide, or the accumulated stores of carefully observed and accurately recorded facts, regarding the occurrence of disease in its different forms, its extension or limitation in space, and the periodicity of its recurrence. But reliable tables of sickness and mortality do not exist, except for very limited and widely separated portions of the globe. In the absence of positive data, however, a knowledge of the physical conformation of the earth's surface, and the meteorological agencies to which it is exposed, afford, through comparisons of well known phenomena in long settled countries, a means of arriving at certain probable conclusions regarding others of which little or nothing is known. After noticing briefly the object of Medical geography the author shows, that similarity of geological formation indicates a similarity in the diseases of a country, and that a certain amount of heat and a sufficient time for its manifestation is necessary for the development of certain maladies. In the West Indies, for instance, the period of disease follows the course of the sun, the unhealthy seasons occurring at opposite sides of the equator. As the sun proceeds northwards in the ecliptic, so the sickly season advances from the southern to the northern islands. In the Mediterranean the mortality is doubled in the hot season, between July and October; and in the Southern States of North America, the posts of the Army are regularly abandoned as the hot or sickly season approaches. But in the temperate regions the order is reversed. Throughout Europe, generally, the maximum mortality occurs at the end of winter, and the minimum at the middle of summer. After dwelling for some time upon the influence of winds, elevation above the sea level, temperature, moisture, electricity, etc., upon health, the author proceeds to illustrate the great object of his paper by the aid of a map upon an extended scale, upon which the distribution of disease over the various regions of the globe is clearly and intelligibly laid down. With the view to demonstrate that regions of disease correspond with seasons and zones of climate, Mr. Keith Johnston divides the surface of the globe into belts or zones, distinguished by great leading characteristics, as, 1st, The torrid zone, or belt of greatest annual mean temperature, characterized by the class of diseases, which includes dysentery, yellow fever, diarrhœa, malarial fevers, and diseases of the liver. This class of disorders depends essentially on heat and moisture as the exciting causes, and therefore prevails in greatest intensity in the countries situated under the line of the greatest annual mean temperature. Its northern limit is probably the Bermudas, lat. 32° North, in the Atlantic; and California, 38° on the Pacific Ocean, in America. In Asia it extends to near Pekin, lat. 40° North, and in Europe to the south of Spain. Its southern limits are—in America, Buenos Ayres, lat. 34° South, in the Atlantic; and Lima, 12° South, on the Pacific. In Asia the southern limit includes Aracan, Ava, Ceylon, Borneo, and the islands of the Asiatic Archipelago, and thence to the northern shores of Australia. In Africa it includes the island of Madagascar. Within these limits, the principal centres of the diseases, are, in America—the shores of the Gulf of Mexico, the West India islands, and the northern portions of South America. In Asia—India, China, and Ceylon. In Africa—the countries around the Gulf of Guinea on the west; Madagascar and Mozambique on the east; Algeria and the shores and islands of the Mediterranean on the north. In the 2nd, or sub-torrid and temperate zone, inflammatory diseases, represented by typhoid fevers, are the characteristic maladies. In North America and Europe, the southern boundary of this group of diseases, coincides generally with the northern boundary of the first class. In South America it probably includes Patagonia. In Africa it includes the Cape Colony; and it embraces the south of Australia, Tasmania, and New Zealand. Its northern limit in America includes Nova Scotia and Newfoundland; and in Europe the northern boundary includes the British Islands, Norway, and Sweden to 60° North, whence it follows a south-eastern direction till it gradually declines towards the borders of Asiatic Russia. The third zone, or the sub-temperate, sub-arctic, and arctic zone, characterised by catarrhs and colds, includes the whole of Europe to the north of the preceding class. In America, it extends south to Boston and New York, including the district of the Canadian Lakes; thence it continues northward, nearly in the line of 41° mean annual temperature. Iceland is the best known locality of this zone, and may, therefore, be taken as its representative. This island is attacked by catarrh every year in spring, or in early summer. Influenza, which occasionally visits this is-

land, has also a great influence over mortality, attacking the whole of the inhabitants, and spreading, in an incredibly short time, over the whole island. Pullus says, that the majority of the Icelanders die before the age of 50, from asthmatic and catarrhal affections; and Cranz, that catarrh is very prevalent in Greenland. At Okhotsk, in Siberia, it is accompanied with difficulty of breathing; and a cough called "Ho" is endemic among the Samvieds. Mr. Johnston then enters, in a comprehensive manner, upon the subject of the climatology and diseases of the different quarters of the globe, examining with great skill the maladies that infest the shores, the valleys, the mountainous districts, and the islands of each of its great divisions. He next gives a rapid but vivid sketch of the main epidemics by which mankind have from time to time been afflicted, tracing them from the regions of their birth to other countries, into which they sometimes make inroads, and showing the modifications which they undergo in their progress. The author concludes by an interesting examination of the question, embracing the sickness and mortality among our soldiers and sailors, taking as his ground-work the valuable statistical returns presented to Parliament by Colonel Tulloch and Dr. Balfour for the Army, and by Dr. John Wilson and Dr. Bryson for the Navy.

A vote of thanks was unanimously accorded to Mr. Johnson for his paper, and for the valuable map presented by him to the Society. Some observations were then made by Dr. Snow, Dr. Bird, Dr. Greenhow, Dr. Camps, Dr. McWilliam, and Dr. Lewis, who united in eulogising the efforts of the author, and thanking him for having brought them before the notice of the members.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

April 4, 1856.

Dr. Seaton, V.P., in the Chair.

Mr. Barnes read a case of

PERFORATING ULCER OF THE RECTUM.

The patient had been at times subject to uncertain states of the bowels, sometimes diarrhœa sometimes constipation existing. After a recent confinement there was much pain, diarrhœa, and tympanitis. The last illness commenced on February 18, with sickness and pain in the right side of the abdomen; the bowels were constipated, and there were no signs of peritonitic inflammation, the symptoms apparently dependent upon imprudent diet. There was no hernia, but an evident fulness existed in the region of the sigmoid flexure of the colon. Purgatives, fomentations, and enemata were ordered, and produced sufficient evacuations from the bowels. The symptoms continued much the same for the next day or so; the sickness then abated, and though the pain was lessened, there existed extreme restlessness. On the morning of the 22nd she was suddenly seized with all the symptoms of collapse, and the abdomen became enormously distended with tympanitis, but was free from pain on pressure. She gradually sank, and a post-mortem examination was instituted fifty hours after death. The peritonæum was everywhere glistening and free from redness; near the sigmoid flexure about an ounce of yellowish fluid was effused; the stomach and intestines were healthy, except at about seven or eight inches from the rectum, where a thickened, hardened mass of tissue existed, involving the entire circumference of the gut. This piece of bowel was removed, and, upon being opened, exhibited a thickened state of the submucous tissue, the calibre of the canal being somewhat reduced. The diseased surface extended over about four inches. The mucous membrane was softened and ulcerated in three places; one of the ulcers had perforated, another had nearly done so, and the third had only engaged the mucous coat; there was some yellowish tubercular matter between the ulcers; the mucous membrane was generally softened in the diseased portion of the bowel. The specimen was exhibited.

The points of interest in the case were the situation of the stricture, it being so high up, and so contradicting the opinion that stricture of the rectum is never beyond the reach of the finger. Another point to be noticed was the slight degree of the symptoms during life, and of the absence of all peritoneal inflammatory appearances after death.

Mr. Barnes also introduced a specimen of

CANCER OF THE PYLORUS.

The patient had not complained of any symptoms except for a few weeks before death, during which time her countenance had assumed the peculiar cachectic expression so pathognomonic of organic mischief. Her chief symptoms were incessant vomiting after (about half an hour) every meal, the vomited matter being dark coloured; sour eructations, and confined bowels; there was no severe pain, nor was any fever discovered by any of those who saw her during this illness; there was no tenderness. Notwithstanding these negative symptoms, the author diagnosed cancer, an opinion at variance with that of two other gentlemen who were called in consultation. The treatment consisted of rigid rules in diet and mild aperients; the vomiting resisting strychnia, nux vomica, bismuth, and prussic acid; she finally sank from exhaustion. After death the body was found much emaciated; there was no hardness in the region of the pylorus, but in the splenic region a hard mass was distinctly felt. Upon opening the abdominal cavity this hardened feeling was proved to be the pylorus, the cardiac end of the stomach being pushed up under the ribs, and the stomach assuming an horizontal position in its new situation; the duodenum was stretched across the vertebral column to the stomach. Upon opening the stomach it was found to contain a large quantity of dark-coloured fluid, and the pyloric end was occupied by this cancerous growth; in this latter the mucous membrane was ulcerated and bleeding. A remarkable fact in this case was, that the sickness which had so exhausted her ceased entirely just before death, and the bowels, which had generally been constipated, acted regularly. The situation of the stomach, not to be accounted for by any inflammatory adhesions as it was free and loose in its abnormal locality, accounted for the non-detection of the tumour during life.

The Society then adjourned.

MILITARY MEDICAL AND SURGICAL SOCIETY.

FIRST DIVISION, BRITISH ARMY, CRIMEA.

February 28, 1856.

Dr. Williams in the Chair.

(Communicated by the Hon. Secretary.)

Dr. Williams mentioned that Sir John Hall was on his way to the meeting, but had met with a slight accident which obliged him to return; but he had sent a letter which he received that day from Dr. Smith, Director-General, acknowledging the receipt of the proceedings of the first two meetings, and promising all assistance in his power to further their objects.

Sir John Hall also sent a numerical return of the wounds received in action from the commencement of the war to the 31st of December, 1855.

The general rules that had been drawn up by the Council were then read.

Dr. Menzies read some remarks on

AMPUTATIONS.

Although the works of our most distinguished civil and military Surgeons would appear to embrace and elucidate every point of question or difficulty connected with the subject, the matter he had selected for the Society was one of interest at the present time, and, without venturing to suggest any novelty or theory of practice, he felt it a duty to elicit every possible information which might hereafter tend to preserve either life or limb. Three questions suggested themselves: 1st. In any given case, why should we amputate? 2nd. When should we amputate? and 3rd. How, or in what manner should the amputation be performed? The first and second questions involved the nature and extent of the injury, the condition of the patient, and the circumstances of locality, both present and eventual. They comprised what was called Conservative Surgery, and, if he might use the expression, the antagonistic radicalism of Surgery. He would therefore ask in the first place, What extent of lesion of soft parts without detriment to a principal artery or fracture of bone can

justify amputation? Most of us have seen a fatal shock to the system by a large shot or fragment of shell traversing the axis of a limb, or passing through its soft parts. He remembered a soldier of the 79th Highlanders wounded in the trenches by a large fragment of shell passing transversely through the muscles of both thighs, but without injuring the bone, which case terminated fatally in 4 hours. This case proved fatal, in consequence of not applying a tourniquet, as the track of the large vessels of the limb was not injured. He would, therefore, caution his younger brethren against neglecting so simple a precaution, as many causes may tend to produce hæmorrhage during the transit of the patient to the Hospital. In such a case he considered our duty was to assist nature in the subsequent extensive suppuration, for it is astonishing to what an extent injury of the soft parts may be repaired. He then mentioned a case in which the arm and leg were both extensively injured:—The arm was amputated on the field, but in the leg the foremost artery had been laid bare, just below Poupart's ligament; two inches of the thumb had been exposed; still it gradually covered over. Everything was against this man, from the nature and extent of the injury, the prostration from his wounds and the amputation, and the circumstances which precluded his being treated in the Crimea. He imagined, therefore, from this and similar cases, that in the majority of uncomplicated lesions of soft parts, if the system rallies from the first shock, the chances are in favour of recovery without amputation. He then referred to the valuable properties of the compound tincture of benzoin, or friar's balsam, in extensive lacerated wounds; it would be of advantage more especially in a long passage by sea to the Hospital, after an action, as had already occurred in the Crimea. Where sloughing had actually occurred, the application of pure nitric acid (but not beyond the dead surface as in Hospital gangrene) speedily converts an offensive source of irritation and fever into an innoxious, inodorous healthy substance, and greatly expedites its removal. The infliction of a wound on the principal artery of a limb, or even one of its large branches, forms a most serious complication in the lesions of the soft parts received in action; happily it is not frequent, as arteries, from their elasticity and peculiar structure, often escape; still it does occur, and the question is, what influence it should have on our practice. A man of the 93rd Highlanders was wounded by a ball in the popliteal space, and the artery opened. The vessel was skilfully tied by Dr. Logan, above and below. Mortification ensued, and amputation was performed as a *dernier ressort*, and the man died. Now, although there can be little doubt that, had amputation been performed in the first instance, this man's life would have been saved, it does not follow that this would have been the correct practice. He trusted that we might hear some results of the experience of Alma, Balaklava, and Inkermann on this point. His own opinion was, that, unless under very peculiar circumstances, the primary consideration should be the immediate security of the patient's life by deligation of the artery, leaving amputation to follow as a possible but not probable consequence. Our next consideration was regarding fractures of bone received in battle as connected with amputation. The solution of continuity will of course depend much on the missile, etc. Limbs have not much chance in the track of a round shot or shell, and leave us little choice of action. He believed that as regarded the upper extremity and below the knee an ordinary bullet will waver, and a Minié seldom causes such extensive comminution as to justify amputation. The old bullet was easily turned in its course, but the Minié produced longitudinal fracture and sometimes comminuted it in an extraordinary manner; still the reparative process of fracture was often equally extraordinary. He then mentioned a case in point. The success that had attended the operation of resection of joints proved it was not absolutely necessary to amputate because a ball had not penetrated any articulation of the upper extremity, or a fracture extended into it. Wounds of the carpus and tarsus were also amenable to the principles of conservative Surgery, of which he had seen several admirable results. He would now refer to compound fractures of the thigh—though last, the most important, and embracing the first question, Why should we amputate? It was a most serious and sacred duty of the Surgeon to weigh well this question. All personal feelings of *éclat* or vanity must be spurned. At the Cavalry charge of Balaklava General Canrobert exclaimed, "Mais ce n'est pas la guerre;" and although it may be equally magnificent to a Professional eye to see Weiss's bright steel flashing through wounded limbs in graceful curves, it was not always Surgery. There was no operation that he would not have an honest pride in performing; but he maintained that it was not always necessary to amputate in compound fracture of the femur. Can life be insured when amputation of the thigh was performed?—certainly not. Must it be sacrificed without a hope of saving the limb?—certainly not. There is a living proof to the contrary this moment in the camp. Under what more unfavourable circumstances could the wounded have been placed than after Alma, Balaklava, and Inkermann? Still the cases proved remarkably successful. He then referred to the modes of protecting the limbs from the motion during very rough transit, to which military men, under such circumstances, were subject, and recommended the gutta percha splint, and also observed on the best mode of applying it. The French Surgeons said they now never attempted to save a compound fracture of the femur; no doubt many English Surgeons held the same opinion. He was aware that those cases required extreme vigilance; but what had happened might happen again, and he trusted that attempts would be made to preserve the limb in such cases, should we have another campaign. The rifle bullet generally split the femur in the direction of its fibres. His experience of wounds of large joints led him to the conviction that either amputation or resection must be performed to give the patient a chance of his life. He was in favour of the resection of joints. The next question was, When is it to be performed? Is it to be primary or secondary? Primary operations he considered to be within thirty-six hours, or before adhesive inflammation had fairly set in. The consequences of secondary operations during that period were very fatal when the operations were delayed to the true secondary period. When the constitution had become in some degree accustomed to the drain on the system, the results became very favourable. He then gave some tables of the results of secondary operations at Scutari, but the returns were not very complete; however, the conclusion naturally was, that if amputation were to be performed, the sooner it was done the better after the receipt of the injury; and if delayed, no operation should be performed until local and constitutional circumstances were favourable. He would continue the subject on another day.

Dr. Williams said that as the practice of some was very different from what had been so ably stated by Dr. Menzies, he hoped that those who were there from the commencement of the war would give their experience. With reference to the tincture of benzoin for wounds, he had not used it himself, but had found copaiba of the greatest use in lacerated wounds.

Mr. Blenkins felt sure the author must have had considerable experience in gun-shot wounds. He could bear his testimony to the admirable effects of the tincture of benzoin. He thought it a valuable remedy, and had used it in cases of hæmorrhage from the surface of scorbutic sores with the greatest benefit.

Dr. Crawford differed somewhat from Dr. Menzies, but agreed with him in cases of wounds of the humerus. He considered wounds of the large joints as cases for resection; however they were not always hopeless cases, and he mentioned the case of an officer of the 18th Regiment who was wounded in the knee-joint, treated by Dr. Ryan, 18th Regiment, by est, and whose limb was saved without an operation. Compound fractures of the femur were also not without such success as to leave hope of saving the limb. He also mentioned some cases of compound fracture of the tibia that afterwards required operations; still he in general agreed with Dr. Menzies, that many cases would still require operations.

Dr. Trotten mentioned a case at Scutari of a wound of the knee-joint, where an attempt was made to save the limb, but amputation was subsequently required.

Dr. Crawford, in reply to Mr. Blenkins, said the synovia escaped from the wound of the knee-joint.

Dr. Robinson could not corroborate Dr. Menzies' statement of the advisability of preserving the limb, where the injury was below the knee; the amount of injury almost always required amputation, and if not done primarily, would require to be subsequently performed with more risk to the patient.

Dr. Gordon after a long experience here and elsewhere never had reason to regret not having saved the limb when the joint had been injured; he had never seen a case in which the head of the tibia was injured that had recovered without an operation.

Dr. O'Leary read his successful case of excision of the head of the femur.

Dr. Shelton mentioned a case of compound fracture of the middle of the humerus which recovered without operation; he was an advocate for conservative surgery.

Mr. Blenkins thought that Dr. O'Leary's case was a favourable one for excision, and he had an opportunity of seeing the man while under treatment in the 68th Regiment Hospital, and was struck with the simplicity of the apparatus employed.

Dr. O'Leary said, that as allusion had been made to the re-section of the hip-joint, he had read the case that had proved so eminently successful.

Dr. Robinson had a case of gun-shot wound of the knee-joint; there was no splintering of the bone, and it was considered an apt case for an attempt at conservative surgey. The patient, however, subsequently died.

Dr. Gibant had seen two excisions of the elbow and two of the knee both successful.

Dr. Burke said his experience during the Sutlej campaign was in favour of primary amputations.

Mr. Rodgers mentioned a case of wound of the knee-joint that proved fatal.

Dr. Williams considered the same amount of mortality would not have occurred had the cases happened under different circumstances. In hot climates he considered that primary amputations should generally be preferred.

Dr. Gordon corroborated Dr. Burke, and said that he, out of twenty-two operations on the upper extremity, had only lost one.

Mr. Thornton was greatly in favour of early operations after injuries, and mentioned a case of a soldier whose arm he had amputated at the neck of the humerus, who was walking about the fifth day.

Dr. Burke in reply to Dr. Williams said, with reference to the heat of climate, it was in the north-west provinces of India where the climate is occasionally colder than it is here. The heat of India had nothing to do with the fatal results in the cases he had mentioned.

Dr. Crawford thought, as far as he could gather the opinion of the Members, that amputation was considered necessary in cases of perforating wounds of the knee-joint. Inflammation of the synovial membrane appeared to have been the cause of dread; but he hoped that he might live to see the day when amputation would not be considered altogether necessary in those cases.

Dr. O'Leary mentioned a case of wound of the knee-joint in which he could introduce his little finger; there could be no mistake that the joint was injured, as the synovia was escaping from the wound. He was going to amputate, but was ordered not by the principal Medical Officer: the man died in a few days of pyæmia. In another case the knee was wounded by a piece of glass, the synovia escaped from the wound; ice was constantly applied, and tartar emetic administered; on the seventh day inflammation set in and mercury was given; the joint gradually improved, the wound became chronic, and is now progressing favourably. He was of opinion that synovia may come out of a wound and yet the limb may be saved. This was not a clean wound.

Mr. Wyatt considered that we should not trust too much to the absence of any sanguineous effusion immediately after an accident. He had no experience of the tincture of benzoin, but he did not approve of the tincture of matico. He imagined that neither of them could be applied except in cases where hæmorrhage occurred only from the surface of sores and wounds. The author of the paper, in speaking of the French practice here, in reference to the wounds of the middle and upper thirds of the thigh, had been somewhat in error, the fact being that they scarcely ever operate in such cases, but leave the patient to Nature; and they find it as successful as in cases where for similar injuries they had previously operated. He could bear testimony to the extraordinary course a Minié ball would sometimes take, and mentioned a case that occurred at Inkermann.

Mr. Bowen thought the question raised respecting the employment of primary or secondary amputations a most important one. He could speak most favourably of the employment of aconite as an anti-phlogistic remedy instead of tartar emetic. He did not approve of the gutta percha splints recommended by Dr. Menzies, but preferred those made of thin wire, which are light and cleanly.

Mr. Wyatt had seen the splints mentioned by Mr. Bowen; they were constantly employed in the French ambulances, and were found very useful.

Dr. Sclaveroni said the wire splints had been used in the Sardinian army in a few instances, and were highly approved of.

Mr. Blenkins had been edified by the discussion, and he proposed a vote of thanks to Mr. Menzies.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

Nottingham.—At a meeting of Medical officers of unions of Nottingham and the neighbourhood, held at the Dispensary, Nottingham, on May 7th, George Blake Norman, Esq., of Ilkeston, in the chair, the following Resolutions were unanimously passed:—1. That this meeting tenders its best thanks to Mr. Griffin for his exertions in behalf of the Poor-law Medical Officers, and without pledging itself to details, approves generally of the principles advocated by him. 2. That a subscription of 5s. be at once paid and repeated quarterly as long as necessary. 3. That Mr. Norman be requested to act as secretary and treasurer, and to communicate with Mr. Griffin as to the further steps to be taken for the carrying out of his views. 4. That the foregoing Resolutions be sent for insertion to the leading medical journals, signed by the Chairman in behalf of the meeting. 5. That the thanks of this meeting be given to Mr. Norman for his conduct in the chair.—Geo. B. Norman.

Northwich.—At a meeting of the Poor-Law Medical Officers, held at the Northwich Union Workhouse, present,—S. Smith, T. M'Gregor, Weaverham; Thomas Hughes, Middlewich; James Dean, Northwich,—It was resolved, 1. That this meeting tenders its best thanks to Mr. Griffin for his exertions in behalf of the Poor-Law Medical Officers. 2. That five shillings per quarter be paid for the next twelve months by each Medical Officer. 3. That all Surgical cases should be paid for extra. 4. That Mr. Dean be appointed Local Secretary and Treasurer, and be requested to forward a copy of these Resolutions to the Journals.

Wycombe.—A Meeting of the Medical Officers of the Wycombe Union was convened by Mr. Small, as Medical Officer of the Union House, at the Town Hall, Wycombe, on Thursday, the 8th of May, 1856, to take into consideration the proposition of Mr. Griffin on Poor-Law Medical Reform. Messrs. Rose, Turner, Small, Matthews (Wycombe), Warren, (Risborough), Edis (Stokenchurch), Smith (Beaconsfield), Smeathman (Missenden), were present, when it was proposed that the Senior Officer present do take the Chair. Mr. Turner, on taking the Chair, made a few remarks on the subject of the meeting, when the following propositions were made, seconded, and carried unanimously:—1. Proposed by Mr. Rose, and seconded by Mr. Small, That the thanks of this meeting are due to Mr. Griffin for his untiring zeal in carrying out the movement, and that this meeting fully approves of the general principles advocated by Mr. Griffin. 2. Proposed by Mr. Rose, and seconded by Mr. Smeathman, that a subscription be entered into for expenses incurred, and that Mr. Small be requested to forward the same, with a copy of these Resolutions, to Mr. Griffin. 3. Proposed by Mr. Edis, and seconded by Mr. Rose, That a subscription of 5s. be entered into, and repeated as occasion may require. 4. Proposed by Mr. Smeathman, and seconded by Mr. Warren, that this meeting, without pledging itself to details, approves generally of the principles circulated by Mr. Griffin. 5. Proposed by Mr. Small, and seconded by Mr. Smith, that a copy of these Resolutions be forwarded to the *Medical Times and Gazette*, and *Lancet*. The sum of £1 15s. being collected in the room, and a vote of thanks being returned to the Chairman and Secretary, the meeting separated.

Wilts.—At a meeting of the Medical Profession of the northern division of the county of Wilts, held at Chippenham on Wednesday, April 30, in support of Mr. Griffin's movement,—present, Mr. Jennings, of Malmsbury (in the Chair), Mr. F. Spencer, and Dr. W. H. Colborne, Chippenham; Mr. Montgomery and Mr. Thomas B. Anstie, Devizes; Mr. T. H. King and Mr. Cartwright, Colne; Mr. Kendrick and Mr. J. R. King, Melksham; Mr. Knaggs, Swindon; Mr. H. Crisp, Lacock; Mr. Fitzgerald, Avebury; Mr. Thomas Taylor, Cricklade; Dr. M. B Smith, Corsham; Mr. Edwin Smith,

Sherston Magna; and Mr. C. Smith, Highworth,—the following Resolutions were passed:—1. That this meeting regards the movement set on foot by Mr. Griffin as the natural and necessary result of the increased demand made upon the Medical Practitioner for education and its representative, skilled labour; and while, therefore, it offers Mr. Griffin its cordial thanks for his exertions in originating the movement, it also would recognize the claim which rests on the whole Profession for its support. 2. That this meeting is of opinion that the present rate of payment of the Medical Officers of Unions is quite inadequate to the labour and skill required at their hands. It considers that a general increase of salary is demanded, and that that increase should be rightly apportioned to the number of cases requiring attendance, with a due regard to the number and length of the journeys. 3. That this meeting regards with satisfaction the proposed meeting of the Profession in London, as proposed by Mr. Griffin, and will be happy to appoint such gentlemen to represent this meeting on that occasion as would volunteer so to do. (Three gentlemen present then offered their gratuitous services, if not prevented by urgent business.) 4. That a subscription be entered into for the furtherance of this object, of 5s. per quarter, to be continued as long as considered necessary; and which, after deducting the expenses attending on this and similar meetings should be handed over to Mr. Griffin. 5. That Mr. Thomas B. Anstie be requested to act as Secretary and Treasurer. The foregoing Resolutions were carried unanimously, as also that a report of the meeting be forwarded for insertion in the *Medical Times and Gazette*, *Lancet*, and the *Association Journal;* and votes of thanks to the Chairman and Mr. T. B. Anstie for their services.

MEETING OF THE METROPOLITAN MEDICAL OFFICERS OF HEALTH.

On Tuesday evening, the 13th of May, a meeting of the newly-appointed Medical Officers of Health for the various metropolitan districts was held at the house of the Medical Society of London, in George-street, Hanover-square. About thirty gentlemen were present; including Dr. R. Dundas Thompson, who was called to the chair; and Dr. Hillier, who acted as Hon. Secretary.

The gentlemen present were unanimously of opinion that the interests of the public would be promoted if something like a uniform and regular plan of operations were carried on all over the metropolis. Their duties were in many respects uncertain and ill-defined in their nature and extent; and whether for the purpose of getting rid of material causes of disease, or of arriving at broad statistical results, unity was essential. It was agreed, therefore, to form an association for mutual assistance and information, and for the advancement of sanitary science; and it was resolved to invite Mr. Simon to be President. It was agreed on all sides that it is Mr. Simon who has given sanitary science its present status and popularity; and that the creation of Officers of Health for the various districts of the metropolis was the result of the example set by Mr. Simon, and of the beneficial effects of his labours in the City. At the same time it was most clearly understood that the choice of the meeting fell on Mr. Simon solely from his personal character, and not in any way because of the office which he holds under Government. It was considered most desirable to avoid even the appearance of anything that might seem like the introduction of Government dictation into parish affairs. A small Committee was appointed to confer on rules and regulations.

The following is a list of the Medical Officers of Health for the Metropolis; we give them in the order in which the parishes and districts are enumerated in the Act:—

St. Marylebone, Dr. R. Dundas Thompson; St. Pancras, Dr. Hillier; Lambeth, Dr. Odling; St. George, Hanover-square, Dr. Aldis and Dr. Druitt; Islington, St. Mary, Dr. Ballard; Shoreditch, St. Leonard, Dr. Barnes; Paddington, Dr. Sanderson; St. Matthew, Bethnal-green, Mr. Pearce; St. Mary, Newington (Surrey), Mr. Iliff; Camberwell, Dr. Bristowe; St. James, Westminster, Dr. Lankester; St. James and St. John, Clerkenwell, Dr. Griffith; Chelsea, Dr. Barclay; Kensington, Mr. Godrich, junior; St. Luke, Middlesex, Dr. Pavy; St. George the Martyr, Southwark, Mr. Rendle; Bermondsey, Dr. Challice; St. George-in-the-East, Dr. Pittard; St. Martin-in-the-Fields, Mr. Beal; Hamlet of Mile End Old Town, Dr. Freeman; Woolwich, ——; Rotherhithe, Dr. Murdoch; St. John, Hampstead, Mr. Lord; City of London, Dr. Letheby; Whitechapel District, Mr. Liddell; Westminster, Mr. Barnard Holt; Greenwich, Mr. Pink; Wandsworth, Mr. Whiteman; Hackney, Dr. Tripe; St. Giles, Mr. Hunt; Holborn, Dr. Gibbon; Strand, Dr. Conway Evans; Fulham, Mr. Burge; Limehouse, Mr. Cleland; Poplar, Mr. Ellison and Dr. Ansell; St. Saviour's, Mr. Bianchi; Plumstead, Mr. King, (Eltham;) Mr. Finch, (Charlton;) Mr. Burton, (Lee;) Lewisham and Penge, Mr. Wilkinson.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in transmitting the return of sick for the period ending 29th March, states—

"The health of the army continues very satisfactory; there has been a decrease both in the mortality and number of sick during the week. Even the health of the Land Transport Corps has been slowly improving for the last three weeks, and this week there has been a more decided change for the better.

The admissions from fever have fallen from 80 to 50 in the course of the week, and the cases that have presented have been of a milder character.

During the early part of the week, the weather, though cold, was clear and dry; but on the 27th snow fell, and since then we have had perfect winter again. These frequent changes have produced a species of influenza which has been very prevalent of late, but not of a severe character.

The troops at Kertch, and the cavalry division in the Bosphorus are equally healthy with the army near Sebastopol, and the ratio of sick to well, including those in General Hospital at Scutari and Renkioi as well as in the Crimea, is only 5·7 per cent., and the mortality during the last week in the whole army has only been 0·02 per cent.

The sick to well before Sebastopol is only 4·13 per cent., and the mortality has only been 0·02 per cent.

Fourteen deaths have taken place out of an estimated force of 56,526, and of this number 6 occurred in the Land Transport Corps.

In the Artillery, Third, and Highland Division, no casualties occurred; and in the Second, Fourth, and Light only one each, which evinces an immunity from various diseases that is very satisfactory.

Medical Benevolent College.—On Tuesday, the third annual meeting of the governors of this Institution was held at their Offices, Soho-square, Earl Manvers in the chair. The report mentioned that the promoters of the College saw the undertaking enjoying continued success and receiving increased subscriptions; the building was now completed; the schools were in operation, the pensioners were in their home, and the Institution incorporated by act of Parliament. On the 25th of June last, Prince Albert opened the College, and on the 19th of July 20 pupils and 10 pensioners were admitted into it. On the 20th of August there were also admitted 125 exhibitioners, which, with 25 foundation scholars, made the entire number for which the College was designed. It is now desirable to build a chapel for the accommodation of the inmates, and, to secure funds for that purpose, the fee of life-membership has been in the case of ladies reduced from £10 to £5. There was received at the last annual festival subscriptions to the amount of £3000, and the late Mr. Thomas Watts bequeathed £300 to the corporation, the interest to be paid in prizes to the pupils. The total receipts for the year, including £532 balance from the former year, £9866 donations, £2008 subscriptions, £5865 realized by the sale of £6500 stock, amounted to £20,105; and the expenditure, including £8082 paid on building account, and £1457 the repayment of a debt, and other items, to £19,008; leaving in hand a balance of £1097. The report was unanimously adopted, and some routine business having been disposed of, a vote of thanks was passed to the chairman, and the meeting adjourned for a week, when an election of pupils and pensioners will take place.

THE RUGELEY POISONING CASES.

TRIAL OF WILLIAM PALMER.

Wednesday morning having been appointed for the trial of William Palmer for the Rugeley poisonings, the most intense interest was evinced by the public to hear the proceedings; and but for the careful and excellent arrangements made by the authorities of the court, under the direction of the Under-Sheriffs, it would almost have been impossible to carry on the proceedings with anything like decorum. The first day's proceedings, in fact, opened in a singularly quiet manner. The sheriffs, apprehensive of pressure, had so limited the issue of tickets, as wholly to preclude the probability of a rush either outside or inside. The court was soon comfortably filled. At five minutes to ten, the crier announced the entrance of the Judges, and immediately after Lord Chief Justice Campbell, with Baron Alderson and Mr. Justice Cresswell, took their seats on the bench. The prisoner walked rather quickly to the front of the dock, but without haste or uncertainty, and looked all round with a seemingly composed air. He seemed older than 31, the age stated in the indictment, and had evidently grown much stouter during his confinement. He is a man rather under than over the middle height, of fair florid complexion, and sanguine temperament, and with nothing in his round, ordinary face to indicate criminal inclinations or dark and deep designs. A casual observer would set him down as a respectable, good-humoured farmer; and a physiognomist would be more inclined to give him credit for social and convivial habits, than for those elaborately-planned crimes which the indictment lays to his charge. His forehead is high and open, and altogether the expression of his countenance is the reverse of disagreeable. His manner during the day was entirely free from bravado, but was respectful and attentive, and was calculated to create a favourable impression; and, although on the jury being called he scrutinized the face of each man attentively as he came up, he declined his right of challenge. It was mentioned that on the side of the prosecution some confusion had arisen in the carriage of the proceedings, in consequence of the change of solicitors that had more than once taken place. In the first place, a gentleman from Rugeley was employed; then the case was entrusted to Mr. Reynolds; but that gentleman becoming suddenly afflicted at once with illness and a severe domestic calamity, the case was handed back to the Rugeley solicitor. Seeing that the most trivial details of the great criminal trials of former days are read with the deepest interest whensoever they become matters of history, it may not be amiss to notice that in this, one of the most remarkable of the present time, the Chief Justice himself took special charge of the case from the commencement, and indicated an almost nervous anxiety that full and impartial justice should be done.

THE CASE OF JOHN PARSONS COOK.

The indictment, which charged the prisoner with the wilful murder of John Parsons Cook, having been read,

The prisoner pleaded Not Guilty.

He was then arraigned upon the coroner's inquisition for the like offence, and to this he also pleaded Not Guilty.

A great number of Medical witnesses were subpœnaed on both sides, and among those present in the body of the Court we observed Dr. Paris, President of the Royal College of Physicians, Sir Benjamin Brodie, Dr. Alfred Taylor, Dr. Christison, of Edinburgh, Dr. Tweedie, Dr. Owen Rees, Mr. Curling, Dr. Letheby, Mr. Nunneley, of Leeds, Dr. Todd, Mr. Lawrence, Mr. Brande, Mr. Lolly, and many others.

The Attorney-General, Mr. E. James, Q.C., Mr. Bodkin, Mr. Welsby, and Mr. Huddleston appeared for the Crown; Mr. Serjeant Shee, Mr. Grove, Q.C., who were specially retained, with Mr. Grey and Mr. Kenealy, were counsel for the prisoner. All the witnesses, with the exception of the Medical men, were ordered out of court.

The Attorney-General then rose to open the case for the prosecution. After the usual admonition to the jury, and remarks on the solemnity of the inquiry, the learned Attorney briefly stated the early history of the prisoner, his professional status, and his abandonment of the practice of medicine for the more congenial (to him) pursuits of the turf. This history having already appeared in our columns, (see *Medical Times and Gazette*, Jan. 19, p. 63,) we need not further allude to this part of the learned gentleman's address, as his statement was in strict accordance with our remarks at the above date. He then went on:—

Mr. Cook was a young man of decent family. He had originally been brought up or intended for the profession of the law. He was articled to a solicitor; but, after a time, he inherited some property, to the extent of some £12,000 or £13,000; he became disinclined to a laborious profession, and betook himself also to the turf. He kept racehorses, and he betted considerably; and, in the course of his pursuits, he was connected with, and intimate with, the prisoner. It is for the murder of this John Parsons Cook that the prisoner stands indicted on the present occasion. The charge against him is that he took away that man's life by poison. It will be necessary to show you the circumstances in which the prisoner Palmer was then placed, and the position in which he stands relatively to the deceased man Cook. The case that I have, on the part of the prosecution, to put to you is, that the prisoner, being in desperate circumstances, with ruin, distress, and penal punishment staring him in the face, which could alone be averted by means of money, took advantage of his intimacy with Cook, when Cook had become the owner of a considerable sum of money, and murdered him in order to avail himself of that money. (The money transactions between the prisoner and Cook, and with Walter Palmer, the death of the latter, the various life assurances effected, and the alleged forgery of bills of acceptance, were then successively referred to, for the purpose of showing motive on the part of the prisoner.) The learned gentleman then proceeded:—I shall show that at Shrewsbury, besides the stakes and the sum he was entitled to take, Cook had in his pocket a sum of between £700 and £800. The stakes he was to receive through the Messrs. Weatherby, the racing agents in London, and which would be sent up, in the ordinary course of things, to Weatherby's. He was also entitled to receive money on his bets at Tattersall's, amounting to £1020. Within a week of that time Cook died; and the important inquiry is, how he came by his death—whether by natural causes, or whether by the hand of man? and if the latter, by whose hand? I must tell you, first, the state of mind in which he was. It may be important in this inquiry. He was a young man of 28 when he died, slightly disposed to pulmonary complaint, delicate in that respect, but otherwise a very hale, hearty young man. He had been in the habit of consulting a physician, Dr. Savage, for four years. Dr. Savage saw him in May, 1855. Cook at that time was anxious about his throat. He was suffering from his throat. There were one or two slight eruptions about his mouth; and it seemed that, mistaking the complaint, he had been taking mercury. Dr. Savage put him under a course of tonics, and an improvement immediately took place, and those inconveniences disappeared; but, inasmuch as the mode of treatment in some measure disagreed with him, he came and saw Dr. Savage from time to time; and within a fortnight of his death, Dr. Savage examined him thoroughly; and he will be produced to tell you that at the time he had nothing the matter with him, except that a part of the throat was a little thickened; and he strongly advised him to go abroad for two years, thinking that that possibly might break off his connexion with the turf. Well, having seen Dr. Savage, he went to Shrewsbury, and he was in great delight at having won the race, and got excited, as a man naturally would do who had been at a low ebb in pecuniary matters, and who had made a fortunate hit. He and Palmer met together at the hotel where they were stopping; and they had, I think, two or three bottles of champagne, but the deceased did not indulge in excess of any sort. It is said he was a man not often given to excess. On the contrary, he was an abstemious man at all times, and on this occasion he did no more than perhaps get a glass extra to celebrate his success. He went to bed at night, and got up the next day and went upon the course. That night, the night of Wednesday, the 14th of November, a remarkable incident happened, to which I beg to call your attention. A friend of his, a Mr. Fisher, happened to call upon him. Fisher, in addition to being a

sporting man, is an agent for betting men; and he was at the time an agent for Cook, and sometimes received Cook's bets. Fisher was with a person named Herring at Shrewsbury races, and occupied the next room to that occupied by Cook and Palmer. Fisher, who had been invited by Cook to have a glass of brandy-and-water, went to the room in which Palmer and Cook were. Cook had a glass half full before him. Fisher went in and sat down, when Cook invited him to take a drink, at the same time saying to Palmer, "You will have more?" Upon which Palmer said, "No, unless you will finish your glass." "Oh," says Cook, "that is soon done;" and he took his glass, and tossed it off, leaving only about a teaspoonful at the bottom. He had hardly swallowed it when he said, "O God, there's something in it; it burns my throat." Palmer took up the glass and drank the remainder; and then, offering it to Fisher, said, "Cook thinks there is something in the brandy-and-water; taste it." Fisher replied, "There is no use asking me to taste, for you have left none in." Cook then left the room. He returned after a few minutes and called Fisher out, and told him he was taken violently ill. Fisher went out with him, and Cook was taken with a violent vomiting. He was put to bed; he vomited there; and it became necessary to send for a Medical man. The vomiting continued for a couple of hours. An emetic was given to him, some hot water, and a tooth-brush was put down his throat, to make him eject what he had taken. However, there was no occasion for that; the vomiting went on. Afterwards some medicine was given him, some stimulants, and he then became more tranquil: about two o'clock he fell asleep, and slept till next morning. Such was the state of the man's feelings all that time that I cannot tell what passed; but he gave Fisher the money which he had about him, desiring him to take care of it, and Mr. Fisher will tell you that that money amounted to between £800 and £900 in notes. The next morning, having passed a quiet night, as I have said, and feeling better, he went out on the course, and he saw Fisher, who gave him back his notes. That was the Thursday. He still looked very ill, and felt very ill; but the vomiting had ceased. On that day Palmer's horse, the Chicken, ran at Shrewsbury. He had backed his mare heavily, but she lost. When Palmer went to Shrewsbury he had no money, and was obliged to borrow £25 to take him there. His horse lost, and he lost bets upon the race. He and Cook then left Shrewsbury and returned to Rugeley, Cook going to the Talbot Arms Hotel, exactly opposite the prisoner's house. There is an incident, however, connected with the occurrence at Shrewsbury which I must mention. About eleven o'clock that night a Mrs. Brooks, who betted on commission, and had an establishment of jockeys, went to speak to the deceased on some racing business, and in the lobby she saw Palmer holding up a tumbler to the light; and, having looked at it through the gas, he withdrew to an outer room, and presently returned with the glass in his hand, and went into the room where Cook was, and in this room he drank the brandy-and-water, from which, I suppose, you will infer that the sickness came on. I do not charge that by anything which caused that sickness Cook's death was occasioned; but I shall show you that, throughout the ensuing days at Rugeley, he constantly received things from the prisoner, and that during those days that sickness was continued. I shall show you that, after he died, antimony was found in the tissues of his body and in his blood,—antimony administered in the form of tartar emetic, which, if continued to be applied, will maintain sickness. It was not that, however, of which this man died. The charge is, that, having been prepared by antimony, he was killed by strychnine.

Mr. Serjeant Shee stated that, if any Medical Practitioner were in court, he should object to his being called to give evidence.

The Attorney-General said, that when he came to the details, he should think it necessary to request the Medical witnesses to retire.

Lord Campbell—That I shall require to be done.

The Attorney-General proceeded:—You have, no doubt, heard of the vegetable product known as nux vomica. In that nut or bean there resides a subtle and fatal poison which is capable of being extracted from it by the skill of the operative chemist, and of which the most minute quantity is fatal to animal life. From a half to a quarter of a grain will destroy life. You may imagine, therefore, how minute is the dose. In the human organization the nervous system may be divided into two main parts—the nerves of sensation, by which a consciousness of all external sensations is conveyed to the brain; and the nerves of motion, which are, as it were, the agents between the intellectual power of man, and the physical action which arises from his organization. Those are the two main systems, having their origin in the immediate vicinity of the seat of man's intellectual existence. They are entirely distinct in their allocations, and one set of nerves may be affected while the other is left undisturbed. You may paralyze the nerves of sensation, and may leave the nerves which act upon the voluntary muscles wholly unaffected; or you may reverse that state of things, and may affect the nerves presiding over motion, leaving the nerves of sensation wholly unaffected. Strychnine affects the nerves which act on the voluntary muscles, and it leaves wholly unaffected the nerves on which human consciousness depends; and it is important to bear this in mind—some poisons produce a total absence of consciousness, but the poison to which I refer affects the voluntary action of the muscles of the body, and leaves unimpaired the power of consciousness. Now, the way in which strychnine acting upon the voluntary muscles is fatal to life is, that it produces the most intense excitement of all those muscles, violent convulsions take place—spasms which affect the whole body and which end in rigidity—all the muscles become fixed, and the respiratory muscles in which the lungs have play are fixed with an immovable rigidity, respiration consequently is suspended, and death ensues. These symptoms are known to Medical men under the term of tetanus. There are other forms of tetanus which produce death, and which arise from other causes than the taking of strychnine; but there is a wide difference between the various forms of the same disease, which prevents the possibility of mistake. (The learned counsel then explained the different symptoms which characterize traumatic tetanus and idiopathic tetanus, which latter is of comparatively rare occurrence in this country; but, as this is a matter which will be dwelt upon with great detail in the subsequent testimony, it is unnecessary to report it at any length here.) He then continued. I have reason to believe that an attempt will be made to confound those different classes of disease, and it will be necessary, therefore, for the jury to watch with great minuteness the Medical evidence upon this point. It will show that both in traumatic and idiopathic tetanus the disease commences with the milder symptoms which gradually advance towards the development and final completion of the attack. When once the disease has commenced it continues without intermission, although, as in every other form of malady, the paroxysms will be from time to time more or less intense. In the case of tetanus from strychnine it is not so. It commences with paroxysms which may subside for a time, but are afterwards renewed; and, whereas other forms of tetanus almost always last during a certain number of hours or days, when we deal with strychnine we deal with cases not of hours but of minutes—in which we have no beginning of the disease, and then a gradual development to the climax; but in which the paroxysms commence with all their power at the very first, and terminate, after a few short minutes of fearful agony and struggles in the dissolution of the victim. Palmer was a Medical man, and it is clear that the effect of strychnine had not escaped his attention; for I have a book before me which was found in his house after his arrest, called "Manual for Students Preparing for Examination at Apothecaries' Hall;" and on the first page in his handwriting I observe this remark, "Strychnine kills by causing tetanic fixing of the respiratory muscles." I don't wish to attach more importance to that circumstance than it deserves, because nothing is more natural than that, in a book of this kind, belonging to a Professional man, such notes should be made; but I refer to it to show that the effect of that poison on human life had come within his notice. I now revert to what took place after the arrival of these people at Rugeley. They arrived on the night of Thursday, the 15th of November, between ten and eleven o'clock, when Mr. Cook took some refreshment and went to bed. He rose next morning and went out, and dined that day with Palmer. He returned to the inn about ten o'clock that evening, perfectly well and sober, and went to bed. The next morning, at an early hour, Palmer was with him, and from that time throughout the whole of Saturday and Sunday he was constantly in attendance on him. He ordered him coffee

on Saturday morning. It was brought in by the chambermaid, Elizabeth Mills, and given to the prisoner, who had an opportunity of tampering with it before giving it to Cook. Immediately after taking it the same symptoms set in which had occurred at Shrewsbury. Throughout the whole of that day and the next, the prisoner constantly administered various things to Cook, who continued to be tormented with that incessant and troublesome sickness. Again, toast-and-water was brought over from the prisoner's house, instead of being made at the inn, as it might have been, and again the sickness ensued. It seems also that Palmer desired a woman named Roney to procure some broth for Cook from the Albion. She obtained it and gave it to Palmer to warm, and when Palmer had done so he told her to take it to the Talbot for Mr. Cook, and to say that Mr. Smith had sent it—there being a Mr. Jeremiah Smith, an intimate friend of Cook. Cook tried to swallow a spoonful of the broth, but it immediately made him sick, and he brought it off his stomach. The broth was then taken downstairs, and after a little while the prisoner came across and asked if Mr. Cook had had his broth. He was told, "No; that he had tried to take it, but that it made him sick, and that he could not retain it on his stomach." Palmer said that he must take it, and desired that the broth should be brought upstairs. Cook tried to take it again, but again he began to vomit, and threw the whole off his stomach. It was then taken downstairs, and a woman at the inn, thinking that it looked nice, took a couple of table-spoonfuls of it; within half-an-hour she also was taken severely ill. Vomiting came on, and continued almost incessantly for five or six hours. She was obliged to go to bed, and she had exactly the same symptoms which manifested themselves in Cook's person after he drank the brandy-and-water at Shrewsbury. On that Saturday, about three o'clock, Dr. Bamford, a Medical man at Rugeley, was called in, and Palmer told him that Cook had a bilious attack; that he had dined with him on the day before, and had drunk too freely of champagne, which had disordered his stomach. Now, I shall show to you, by the evidence of Medical men, both at Shrewsbury and Rugeley, that although Palmer had on one or two occasions represented Cook as suffering under bilious diarrhœa, there was not, during the continuance of the violent vomiting which I have mentioned, a single bilious symptom of any sort whatever. Dr. Bamford visited him at half-past three, and when he found Mr. Cook suffering from violent vomiting, and the stomach in so irritable a state that it would not retain a table-spoonful of anything, he naturally tried to see what the symptoms were which could lead him to form a notion as to the cause of that state of things. He found, to his surprise, that the pulse of the patient was perfectly natural—that his tongue was quite clean, his skin quite moist, and that there was not the slightest trace of fever, or, in, short, of any of those symptoms which might be expected in the case of a bilious man. Having heard from Palmer that he ascribed his illness to an excess of wine on the previous day, he informed Cook of it, and Cook then said, "Well, I suppose I must have taken too much; but it's very odd, for I took only three glasses." The representation, therefore, made by Palmer, that Cook had taken an excess of champagne, was not correct. Coffee was brought up to Cook at four o'clock, when Palmer was there, and he vomited immediately. At six some barley-water was taken to him, when Palmer was not there, and the barley-water did not produce vomiting. At eight some arrow-root was given him; Palmer was present, and vomiting took place again. The following may, no doubt, be mere coincidences, but they are facts, which, of whatever interpretation they may be susceptible, are well deserving of attention, namely that, during the whole of that Saturday, Palmer was continually in and out of the house in which Cook was sojourning; that he gave him a variety of things, and that, whenever he gave him anything, sickness invariably ensued. That evening Dr. Bamford called again, and finding that the sickness still continued he prepared for the patient two pills, containing ½ a grain of calomel, ½ a grain of morphia, and 4 grains of rhubarb. On the following day, Sunday, between 7 and 8 o'clock in the morning, Dr. Bamford is again summoned to Cook's bedside, and finds the sickness still recurring, but fails to detect any symptoms of bile. He visited him repeatedly in the course of that day, and on leaving him in the evening found that, though the sickness continued, the tongue was clean, and there was not the slightest indication of bile or fever. Thus Sunday ended. On Monday, the 19th, Palmer left Rugeley for London, on what business I shall presently explain. Before starting, however, he called in the morning to see Cook, and ordered him a cup of coffee. He took it up himself, and after drinking it, Cook, as usual, vomited. After that Palmer took his departure. Presently Dr. Bamford called, and finding Cook still suffering from sickness of the stomach, gave him some medicine. Whether from the effect of that medicine, or from whatever other cause, I know not; but it is admitted that from that time a great improvement was observed in Cook. Palmer was not present, and during the whole of the day Cook was better. Between twelve and one o'clock he is visited by Dr. Bamford, who, perceiving the improvement, advised him to get up. He does so, washes, dresses, and recovers his spirits, and sits up for several hours. Two of his jockeys and his trainer called to see him, are admitted to his room, enter into conversation with him, and perceive that he is in a state of comparative ease and comfort, and so he continued to a late hour. I will now interrupt for a moment the consecutive narration of what passed afterwards at Rugeley, to follow Palmer through the events in which he was concerned in London. (This detail went to show that the prisoner was engaged in settling various turf transactions, and that he did so with Cook's money.) On the evening of that same day (Monday) he returned home. Arriving at Rugeley about nine o'clock at night, he at once proceeded to visit Cook at the Talbot Arms, and from that time till ten or eleven o'clock he was continually in and out of Cook's room. In the course of the evening, he went to a man named Newton, assistant to a surgeon named Salt, and applied for three grains of strychnine, which Newton, knowing Palmer to be a Medical practitioner, did not hesitate to give him. Dr. Bamford had sent on this day the same kind of pills that he had sent on Saturday and Sunday. I believe it was the doctor's habit to take the pills himself to the Talbot Arms, and entrust them to the care of the housekeeper, who carried them upstairs; but it was Palmer's practice to come in afterwards, and evening after evening, to administer medicine to the patient. There is no doubt that Cook took pills on Monday night. Whether he took the pills prepared for him by Dr. Bamford, and similar to those which he had taken on Saturday and Sunday, or whether Palmer substituted for Dr. Bamford's pills some of his own concoction, consisting in some measure of strychnine, I must leave to the jury to determine. Certain it is, that when he left Cook, at eleven o'clock at night, the latter was still comparatively well and comfortable, and cheerful, as in the morning. But he was not long to continue so. About twelve o'clock, the female servants in the lower part of the house were alarmed by violent screams, proceeding from Cook's room. They rushed up, and found him in great agony, shrieking dreadfully, shouting "Murder!" and calling on Christ to save his soul. He was in intense pain. The eyes were starting out of his head. He was flinging his arms wildly about him, and his whole body was convulsed. He was perfectly conscious, however, and desired that Palmer should be sent for without delay. One of the women ran to fetch him, and he attended in a few minutes. He found Cook still screaming, gasping for breath, and hardly able to speak. He ran back again to procure some medicine, and on his return Cook exclaimed, "Oh dear, Doctor, I shall die!" "No, my lad, you shall not," replied Palmer; and he then gave him some more medicine. The sick man vomited almost immediately, but there was no appearance of the pills in the utensil. Shortly afterwards he became more calm, and called on the women to rub his limbs. They did so, and found them cold and rigid. Presently the symptoms became still more tranquil, and he grew better; but the Medical men will depose that the tetanus that afflicted him was that occasioned by strychnine. His frame, exhausted by the terrible agony it had endured, now fell gradually into repose; nature asserted her claim to rest, and he began to dose. So matters remained till the morrow—Tuesday, the 20th, the day of his death. On the morning of that day Cook was found comparatively comfortable. Though still retaining a vivid impression of the horrors he had suffered the night before. He was quite collected, and conversed rationally with the chambermaid. Palmer meeting Dr. Bamford that same day, told him that he did not want to have Cook disturbed, for that he was now at his ease, though he had had a fit the night before.

This same morning, between the hours of 11 and 12 o'clock, there occurred a very remarkable incident. About that time Palmer went to the shop of a certain Mr. Hawkins, a druggist, at Rugeley. He had not dealt with him for two years before, it being his practice during that period to purchase such drugs as he required from Mr. Thirlby, a former assistant of Mr. Hawkins, who had set up in business for himself. But on this day Palmer went to Mr. Hawkins's shop, and, producing a bottle, informed the assistant that he wanted two drachms of prussic acid. While it was being prepared for him, Mr. Newton, the same man from whom he had on a former occasion obtained strychnine, came into the shop, whereupon Palmer seized him by the arm, and observing that he had something particular to say to him, hurried him into the street, where he kept talking to him on a matter of the smallest possible importance, relating to the precise period at which his employer's son meant to repair to a farm he had taken in the country. They continued to converse on this trivial topic until a gentleman named Brassington (or Grassington) came up, whereupon Mr. Newton turned aside to say a few words to him. Palmer, relieved by this accident, went back into the shop, and asked, in addition, for six grains of strychnine and a certain quantity of Batley's liquor of opium. He obtained them, paid for them, and went away. Presently Mr. Newton returned, and being struck with the fact of Palmer's dealing with Hawkins, asked, out of passing curiosity, what he had come for, and was informed. Now here I must mention a fact of some importance respecting Mr. Newton. When examined before the coroner, that gentlemen only deposed to one purchase of strychnine by Palmer at Mr. Salt's surgery, and it was only as recently as yesterday that, with many expressions of contrition for not having been more explicit, he communicated to the Crown the fact that Palmer had also bought strychnine on Monday night. It is for you, gentlemen, to decide the amount of credit to be attached to this evidence; but you will bear in mind that whatever you may think of Mr. Newton's testimony, that of a Mr. Roberts, whom I shall call, on whom there is no taint or shadow of suspicion, is decisive with respect to the purchases which the prisoner made on Tuesday at the shop of Mr. Hawkins. I now resume the story of Tuesday's proceedings with the observation that Cook was entitled to receive the stakes he had won at Shrewsbury. On that day Palmer sent for Mr. Cheshire, the postmaster at Rugeley. He owed Cheshire £7 odd, and the latter, supposing that he was about to be paid, came with a stamped receipt in his hand. Palmer produced a paper, and remarking, "That Cook was too ill to write himself," told Cheshire to write a check on Weatherby's in his (Palmer's) favour for £350. Cheshire thereupon filled up a piece of paper purporting to be the body of a check, addressed in the manner indicated to the Messrs. Weatherby, and concluding with the words, "and place the same to my account." Palmer then took the document away, for the purpose, as he averred, of getting Cook's signature to it. What became of it I do not undertake to assert, but of this there is no question, that by the night's post Palmer sent up to Weatherby's a check which was returned dishonoured. Whether it was genuine, or like so many other papers with which Palmer had to do, forged, is a question which you will have to determine. But now, returning to Cook, it may be observed that in the course of that morning coffee and broth were sent him by Palmer, and, as usual, vomiting ensued and continued through the whole of the afternoon. Here a new person makes his appearance on the stage. You must know that on Sunday, Palmer wrote to Mr. W. H. Jones, a Surgeon, of Lutterworth, desiring him to come over to see Cook. Cook was a personal friend of Mr. Jones, and had occasionally been in the habit of residing at his house. It is deserving of remark that Palmer, in his letter to Jones, describes Cook as "suffering from a severe bilious attack, accompanied with diarrhœa," adding, "it is desirable for you to come and see him as soon as possible." Whether this communication is to be interpreted in a sense favourable to the prisoner, or whether it is to be taken as indicating a deep design to give colour to the idea that Cook died a natural death, it is at least certain that the statement that Cook had been "suffering from a bilious attack attended with diarrhœa," was utterly untrue. Mr. Jones being himself unwell did not come to Rugeley till Tuesday. He arrived at about 3 o'clock on that day, and immediately proceeded to see his sick friend. Palmer came in at the same moment, and they both examined the patient. Mr. Jones paid particular attention to the state of his tongue; remarked, "That is not the tongue of bilious fever." About seven o'clock that same evening, Dr. Bamford called, and found the patient pretty well. Subsequently the three medical men (Palmer, Bamford, and Jones) held a consultation, but before leaving the bedroom for that purpose Cook beckoned to Palmer, and said, "Mind; I will have no more pills or medicine to night." They then withdrew and consulted. Palmer insisted on his taking pills, but added, "Let us not tell him what they contain, as he fears the same results that have already given him such pain." It was agreed that Dr. Bamford should make up the pills, which were to be composed of the same ingredients as those that had been administered on the three preceding evenings. The Doctor repaired to his surgery and made them up accordingly. He was followed by Palmer, who asked him to write the directions how they were to be taken. Dr. Bamford, though unable to understand the necessity of his doing so, under the circumstances, complied with Palmer's request, and wrote on the box that the pills were to be taken at "bedtime." Palmer then took them away, and gave either those pills or some others to Cook that night. It is remarkable, that half-an-hour or three-quarters of an hour elapsed from the time he left Dr. Bamford's surgery until he brought the pills to Cook. When, at length he came, he produced two pills, but before giving them to Cook he took especial care to call Mr. Jones's attention to the directions on the lid, observing that the writing was singularly distinct and vigorous for a man upwards of 80. If the prisoner be guilty, it is a natural presumption that he made this observation with the view of identifying the pillbox as having come from Dr. Bamford, and so averting suspicion from himself. This was about half-past ten at night. The pills were then offered to Cook, who strongly objected to take them, remarking that they had made him ill the night before. Palmer insisted, and the sick man at last consented to take them. He vomited immediately after, but did not bring up the pills. Jones then went down and took his supper, and he will tell you that, up to the period when the pills were administered, Cook had been easy and cheerful, and presented no symptom of the approach of disease, much less of death. It was arranged that Jones should sleep in the same room with Cook, and he did so; but he had not been more than fifteen or twenty minutes in bed when he was aroused by a sudden exclamation, and a frightful scream from Cook, who, starting up, said, "Send for the Doctor immediately, I am going to be ill as I was last night." The chambermaid ran across the road, and rang the bell of Palmer's house, and in a moment Palmer was at the window. He was told that Cook was again ill. In two minutes he was by the bedside of the sick man, and, strangely, volunteered the observation, "I never dressed so quickly in my life." It is for you, gentlemen, to say whether you think he had time to dress at all. Cook was found in the same condition, and with the same symptoms as the night before, gasping for breath, screaming violently, his body convulsed with cramps and spasms, and his neck rigid. Jones raised him, and rubbed his neck. When Palmer entered the room, Cook asked him for the same remedy that had relieved him the night before. "I will run back and fetch it," said Palmer, and he darted out of the room. In the passage he met two female servants, who remarked that Cook was as "bad" as he had been last night. "He is not within fifty times as bad as he was last night; and what a game is this to be at every night!" was Palmer's reply. In a few minutes he returned with two pills, which he told Jones were ammonia, though I am assured that it is a drug that requires much time in the preparation, and can with difficulty be made into pills. The sick man swallowed these pills, but brought them up again immediately. And now ensued a terrible scene. He was instantly seized with violent convulsions; by degrees his body began to stiffen out; then suffocation commenced. Agonized with pain, he repeatedly entreated to be raised. They tried to raise him, but it was not possible. The body had become rigid as iron, and it could not be done. He then said, "Pray turn me over." They did turn him over on the right side. He gasped for breath, but could utter no more. In a few moments all was tranquil—the tide of life was ebbing fast. Jones leant over him to listen to the action of the heart. Gradually the pulse ceased—all was over—he was dead. (Sensation.) I will show you that his was a death referable in its symptoms to the tetanus produced by strychnine, and not to any other possible form of tetanus. Scarcely

was the breath out of his body when Palmer begins to think of what is to be done. He engages two women to lay out the corpse, and these women on entering the room find him searching the pockets of a coat which no doubt belonged to Cook, and hunting under the pillows and bolsters. They saw some letters on the mantel-shelf, which, in all probability, had been taken out of the dead man's pocket; and what is very remarkable is, that from that day to this, nothing has been seen or heard either of the betting-book or of any of the papers connected with Cook's money affairs. On a subsequent day (Thursday) he returned, and, on the pretence of looking for some books, and a paper-knife, rummaged again through the documents of the deceased. On the 25th of November he sent for Cheshire, and producing a paper, purporting to bear the signature of Cook, asked him to attest it. Cheshire glanced over it. It was a document in which Cook acknowledged that certain bills to the amount of 4000*l.*, or thereabouts, were bills that had been negotiated for his (Cook's) benefit, and in respect of which Palmer had received no consideration. Such was the paper to which, 48 hours after the death of the man whose name it bore, Palmer did not hesitate to ask Chesire to be an attesting witness. Cheshire, though, unfortunately for himself, too much a slave of Palmer, peremptorily refused to comply with this request; whereupon Palmer carelessly observed, "It is of no consequence; I dare say the signature will not be disputed, but it occurred to me that it would look more regular if it were attested." On Friday Mr. Stevens, Cook's father-in-law, came down to Rugeley, and, after viewing the body of his relative, to whom he had been tenderly attached, asked Palmer about his affairs. Palmer assured him that he held a paper drawn up by a lawyer, and signed by Cook, stating that, in respect of 4,000*l.* worth of bills, he (Cook) was alone liable, and that Palmer had a claim to that amount against his estate. Mr. Stevens expressed his amazement, and replied that there would not be 4000 shillings for the holders of the bills. Subsequently Palmer displayed an eager officiousness in the matter of the funeral, taking upon himself to order a shell and an oak coffin without any directions to that effect from the relatives of the deceased, who were anxious to have the arrangements in their own hands. Mr. Stevens ordered dinner at the hotel for Bamford, Jones, and himself, and, finding Palmer still hanging about him, thought it but civil to extend the invitation to him. Accordingly they all sat down together. After dinner Mr. Stevens asked Jones to step upstairs and bring down all books and papers belonging to Cook. Jones left the room to do so, and Palmer followed him. They were absent about ten minutes, and on their return Jones observed that they were unable to find the betting-book or any of the papers belonging to the deceased. Palmer added, "The betting-book would be of no use to you if you found it, for the bets are void by his death." Mr. Stevens replied, "The book must be found;" and then Palmer changing his tone said, "Oh, I dare say it will turn up." Mr. Stevens then rang the bell, and told the housekeeper to take charge of whatever books and papers had belonged to Cook, and to be sure not to allow any one to meddle with them until he came back from London, which he would soon do with his solicitor. He then departed, but, returning to Rugeley after a brief interval, declared his intention to have a *post-mortem* examination. Palmer volunteered to nominate the surgeons who should conduct it, but Mr. Stevens refused to employ any one whom he should recommend. On Sunday, the 26th, Palmer called on Dr. Bamford, and asked him for a certificate attesting the cause of Cook's death. The doctor expressed his surprise, and observed, "Why, he was your patient!" But Palmer importuned him, and Bamford taking the pen filled up the certificate, and entered the cause of death as "apoplexy." Dr. Bamford is upwards of 80, and I hope that it is to some infirmity connected with his great age, that this most unjustifiable act is to be attributed. However, he shall be produced in court, and he will tell you that apoplexy has never been known to produce tetanus. In the course of the day Palmer sent for Newton, and after they had had some brandy-and-water, asked him how much strychnine he would use to kill a dog. Newton replied, "from half-a-grain to a grain." "And how much," inquired Palmer, "would be found in the tissues and intestines after death?" "None at all," was Newton's reply; but that is a point on which I will produce important evidence. The post-mortem examination took place the next day, and on that occasion Palmer assured the Medical men, of whom there were many present, that Cook had had epileptic fits on Monday and Tuesday, and that they would find old disease in the heart and head. He added that the poor fellow was "full of disease," and had "all kinds of complaints." These statements were completely disproved by the post-mortem examinations. At the first of them, conducted by Dr. Devonshire, the liver, lungs, and kidneys were all found healthy. It was said that there were some slight indications of congestion of the kidneys, whether due to decomposition or to what other cause was not certain; but it was admitted, on all hands, that they did not impair the general health of the system, or at all account for death. The stomach and intestines were examined, and they exhibited a few white spots at the large end of the stomach; but these marks were wholly insufficient to explain the cause of dissolution. Dr. Bamford contended that there was some slight congestion of the brain, but all the other Medical men concurred in thinking that there was none at all. In the ensuing month of January the body was exhumed with a view to more accurate examination, and it was then found to be in a perfectly normal and healthy condition. Palmer seemed rejoiced at the discovery, and, turning to Dr. Bamford, exclaimed, "Doctor, they won't hang us yet." The stomach and intestines were taken out and placed in a jar, and it was observed that Palmer pushed against the Medical man who was engaged in the operation, and the jar was in danger of being upset. It escaped, however, and was covered with skins, tied down, and sealed. Presently one of the Medical men turned round, and finding that the jar had disappeared, asked what had become of it. It was found at a distance near a different door from that through which people usually passed in and out, and Palmer exclaimed, "It's all right. It was I who removed it. I thought it would be more convenient for you to have it here, that you might lay your hands readily on it as you went out." When the jar was recovered it was found that two slits had been cut in the skins with a knife. The slits, however, were clean, so that, whatever his object may have been in making the incisions, it is certain that nothing was taken out of the jar. He goes to Dr. Bamford, and remonstrates against the removal of the jars. He says, "I do not think we ought to allow them to be taken away." Now, if he had been an ignorant person, not familiar with the course likely to be pursued by Medical men under such circumstances, there might be some excuse for this; but it is for you to ask yourselves whether Palmer, himself a Medical man, knowing that the contents of the jars were to be submitted to an analysis, might not have relied with confidence on the honour and integrity of the Profession to which he belonged. You must say whether his anxiety to prevent the removal of the jars was not a sign of a guilty conscience. Dr. Bamford was a most respectable Practitioner, and his character and position were well known to Palmer. But the case does not stop here. The jar was delivered to Mr. Boycott, the clerk to Mr. Gardner, the solicitor. Palmer, finding that it was to be sent to London for chemical analysis, was extremely anxious that it should not reach its destination. It was going to be conveyed by Mr. Boycott to the Stafford station in a fly, driven by a post-boy. Palmer goes to this post-boy, and asks him whether it is a fact that he is going to drive Boycott to Stafford? He is answered in the affirmative. He then asks, "Are the jars there?" He is told that they are. He says, "They have no business to take them; one does not know what they may put in them. Can't you manage to upset the fly and break them. I will give you £10, and make it all right for you." The man said, "I shall do no such thing. I must go and look after my fly." That man will be called before you, and he will have no interest to state anything but the truth. I have now gone through the painful history, yet there are some points of minor importance which I ought not altogether to pass over, as nothing connected with the conduct of a man conscious that an imputation of this kind rests upon him can be immaterial. After the post-mortem examination it was thought proper to hold a coroner's inquest. On two or three occasions in the course of that inquiry Palmer sent presents to the coroner. The stomach of the deceased and its contents were sent to Dr. Taylor and Dr. Rees, at Guy's Hospital, who were known to be in communication with Mr. Gardner. A letter was sent by Dr. Taylor to Mr. Gardner, stating the result of the investigation; that letter was betrayed to Palmer by the postmaster, Cheshire, and Palmer then wrote to the coroner, telling him that Dr.

Taylor and Dr. Rees had failed in finding traces of poison, and asking him to take a certain course with respect to the evidence. Why should he have done this if there had not been a feeling of uneasiness upon his mind? These matters must not be wholly overlooked, although I will not ask you to give them any undue importance. I should have told you, in addition, that the prisoner had no money prior to Shrewsbury races, while afterwards he was flush of cash. Sums of £100 and £150 were paid by him into the bank at Rugeley, two or three persons received sums of £10 each, and he seemed, in fact, to be giving away money right and left. I think I shall be able to show that he had something like £400 in his possession. Now, Cook had £700 or £800 when he left Shrewsbury on the Thursday morning. None is found. It may be that Cook, who, whatever his faults, was a kind-hearted creature, compassionating Palmer's condition, and influenced by his representations, assisted him with money. That I do not know. I do not wish to strain the point too far, but one cannot imagine that Cook, who had no money but what he took with him to Shrewsbury, should have given Palmer everything and left himself destitute. I will leave you to say whether the combination of motives I have referred to may not have led to the crime with which he is charged. This you will only have to consider supposing the case to be balanced between probabilities; but if you believe the evidence that will be given as to what took place on the Monday and Tuesday—if you believe the paroxysms of the Monday, the mortal agony of the Tuesday—I shall show that things were administered on both those days by the hand of Palmer by a degree of evidence almost amounting to certainty. The body was submitted to a careful analysis, and I am bound to say that no strychnine was found. But I am told that, although the presence of strychnine may be detected by certain tests, and, although indications of its presence lead irresistibly to the conclusion that it has been administered, the converse of that proposition does not hold. Sometimes it is found, at other times it is not. It depends upon circumstances. A most minute dose will destroy life, from half to three-quarters of a grain will lay the strongest man prostrate. But in order to produce that fatal effect it must be absorbed into the system, and the absorption takes place in a greater or less period, according to the manner in which the poison is presented to the surfaces with which it comes in contact. If it is in a fluid form it is rapidly taken up and soon produces the effect; if not, it requires to be absorbed, and the effects are a longer time in showing themselves. But in either case there is a difficulty in discovering its presence. If it acts only on the nervous system through the circulation, an almost infinitesimal dose will be present; and, as it is a vegetable poison, the tests which alone can be employed are infinitely more delicate and difficult than those which are applied to other poisons. It is unlike a mineral poison, which can soon be detected and reproduced. If the dose has been a large one death ensues before the whole has been absorbed, and a portion is left in the intestines; but if a *minimum* dose has been administered a different consequence follows, and the whole is absorbed. Practical experience bears out the theory that I am enunciating. Experiments have been tried which show that where the same amount of poison has been administered to animals of the same species, death will ensue in the same number of minutes, accompanied by precisely the same kinds of symptoms; while in the analysis afterwards made, the presence of poison will be detected in one case and not in another. It has been repeated over and over again that the scientific men employed in this case had come to the conclusion that the presence of strychnine cannot be detected by any tests known to science. They have been grievously misunderstood. They never made any such assertion. What they have asserted is this—the detection of its presence, even where its administration is a matter of certainty, is a matter of the greatest uncertainty. It would, indeed, be a fatal thing to sanction the notion that strychnine, administered for the purpose of taking away life, cannot afterwards be detected! Lamentable enough is the uncertainty of detection! Happily, Providence, which has placed this fatal agent at the disposition of man, has marked its effects with characteristic symptoms distinguishable from those of all other agents by the eye of science. It will be for you to say whether the testimony that will be laid before you with regard to those symptoms does not lead your minds to the conclusion that the deceased came to his death by poison administered to him by the prisoner. There is a circumstance which throws great light upon this part of the case. Some days before his death this man was constantly vomiting. The analysis made of his body failed to produce evidence of the presence of strychnine, but did not fail to produce evidence of the presence of antimony. Now, antimony was not administered by the Medical men, and unless taken in a considerable quantity it produces no effect, and is perfectly soluble. It is an irritant, which produces exactly the symptoms which were produced in this case. The man was sick for a week, and antimony was found in his body afterwards. For what purpose can it have been administered? It may be, that the original intention was to destroy him by means of antimony—it may be, that the only object was to bring about an appearance of disease so as to account for death. One is lost in speculation. But the question is whether you have any doubt that strychnine was administered on the Monday, and still more on the Tuesday when death ensued? And if you are satisfied with the evidence that will be adduced on that point, you must then determine whether it was not administered by the prisoner's hand.

The opening address of the Attorney-General occupied upwards of four hours in its delivery.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on May 2:—

BYRAMJEE, RUSTAMJEE, H.E.I. Co.'s Service, Bombay.
CHATTAWAY, ALLEN G., Pembridge, Herefordshire.
CLIFTON, ARTHUR CROWEN, Northampton.
DANIELL, WILLIAM COLE, Newport Pagnell.
GREGORY, CHARLES, Cheltenham.
HADDEN, JOHN WILLIAM, Van Diemen's Land.
HANDY, CHARLES EDWARD, Darlaston, Wednesbury.
HOWELL, GRIFFITH, Llanelly, Carmarthen.
M'CARTHY, EDWARD, Royal Navy.
MILFORD, FREDERICK, Sydney, Australia.
PORSTON, WILLIAM, Kirkby Lonsdale, Westmoreland.
TAYLOR, ADAM, Norwich.
WINTERBOTHAM, LAURISTON, Cheltenham.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 8, 1856:—

FAWTHROP, THOMAS, Halifax.
HATFIELD, THOMAS H., North Bierley, near Bradford.
LEAMON, MICHAEL SOUT, Tavistock, Devon.
TURTON, JOSEPH, Staveley, Windermere.

APPOINTMENT.

NORFOLK AND NORWICH EYE INFIRMARY.—Dr. Goodwin has been appointed Physician to this Institution.

DEATHS.

MORRIS.—May 10, at Colchester, of apoplexy, David Morris, Esq., in his 56th year; L.R.C.S. Edin. 1820; L.S.A. 1827. (Retired.)

PRICHARD.—May 7, at College Green, Bristol, William Evans Prichard, Esq., Surgeon, aged 85.

UNIVERSITY OF ST. ANDREWS.—List of gentlemen who had the Degree of Doctor of Medicine conferred upon them, May 10, 1856:—

AMINSON, W. BROWN, M.R.C.S., L.A.C., Garstang.
AYERST, JAMES SMITH, M.R.C.S., London.
BAKEWELL, ROBERT HALL, M.R.C.S., L.A.C., Purton.
BELL, JAMES, M.R.C.S. Ed., Leslie, Fifeshire.
BENSLEY, C. E. W., M.R.C.S., G.M.C.B., Calcutta.
BESEMERES, WILLIAM, M.R.C.S., L.A.C., London.
BROWN, RICHARD, M.R.C.S., L.A.C., Hove, Sussex.
COGAN, BERNARD, M.R.C.S., L.A.C., London.
COLLINS, HENRY, M.R.C.S., Wolverhampton.
COTTERELL, P. A., M.R.C.S., L.A.C. West Bromwich.
COUCHER, MARTIN, M.R.C.S., Worcester.
DAVIES, EDWARD, M.R.C.S., L.A.C., Wrexham.
DALDY, THOMAS MEF, L.A.C., London.

Deas, Matthew Ross, M.R.C.S. Ed., Yorkshire.
Flemming, Thomas Henry, Lic. Fac. Phy. and Surg. Glasgow, St. Bartholomew's, West Indies.
Furley, Edward, F.R.C.S., Kent.
Hemming, Charles, M.R.C.S., L.A.C., Abingdon.
Holland, H. F., M.R.C.S., L.A.C., Godalming, Surrey.
Jones, William, M.R.C.S., London.
Jones, John, M.R.C.S. & L.A.C., H.E.I.C. Bengal.
Kitching, John, M.R.C.S., L.A.C., Dublin.
Locking, John, M.R.C.S., Fulham, Middlesex.
Moore, Thomas Joseph, M.R.C.S.I , Dublin.
O'Keefe, William, M.R.C.S., Mallow.
Orgias, Paulin, M.R.C.S., L.A.C., London.
Parsonage, Edwin, M.R.C.S., L.A.C., Wrexham.
Pearse, Robert Bryant, M.R.C.S., L.A.C., Bath.
Puckle, G., M.R.C.S., L.A.C., Camberwell, Surrey.
Rattray, Charles, M.R.C.S. Ed., Demerara.
Rayner, Thomas, M.R.C.S., Manchester.
Reed, John G., M.R.C.S., H.E.I.C. Madras.
Robson, John, L.A.C., Warrington.
Rogers, Robert, M.R.C.S. Ed., Dublin.
Sexton, Edward, Cork.
Sprigg, C., M.R.C.S., L.A.C., Guy's Hospital, London.
Stephenson, John, M.R.C.S., Leeds.
Sutton, William, M.R.C.S., Halstead, Essex.
Tomkin, T., M.R.C.S., M.R.C.S. Ed., Witham, Essex.
Towers, George Augustus, L.A.C., Hertford.
Walker, G., M.R.C.S., L.A.C., Sydney, N. S. Wales.
Walker, Thomas Houghton, M.R.C.S., Dublin.
Wallace, Samuel, M.R.C.S., L.A.C., London.
Watson, Walter, M.R.C.S. Ed., Edinburgh.
Williamson, Joseph, M.R.C.S., L.A.C., Langwathby.
Wilson, R., M.R.C.S., L.A.C., Fivemiletown, Ireland.
Windele, Thomas Patrick, Cork.

Royal London Ophthalmic Hospital.—Her Majesty the Queen has graciously been pleased to present the munificent donation of £100 towards the expenses of the recent enlargement and improvement of this Hospital.

St. Mary's Hospital Medical School.—The first public distribution of prizes in this school took place on Thursday, May 1st, under the presidency of the Rev. Frederick Denison Maurice, Chaplain of Lincoln's Inn, when the large attendance of Governors and Medical Practitioners of the neigbourhood, together with the number of ladies who graced the meeting with their presence, afforded good proof that this young establishment is not wanting in warm friends and supporters. The reverend chairman delivered a very earnest and impressive address, dwelling chiefly on the great advantages likely to accrue to society from a more intimate union and combined action between the three learned Professions, and on the very high privileges and rewards attendant upon the successful study and practice of the Medical Profession. The address was preceded by a report from the school committee, read by the Dean of the school. The following is a list of those students to whom prizes and certificates of honour were awarded:—*Anatomy*—Session 1854-55; Prize—Mr. Owen Ossian Rogers. Certificate of Honour—Mr. Arthur Lawrence; Mr. Walter J. Coulson. *Do. Senior*—Session 1855-56; Prize—Mr. Owen Ossian Rogers. *Do. Junior*—Session 1855-56; Prize—Mr. James Henry Jeffcoat. Certificate of Honour—Mr. H. Howard Hayward. *Chemistry*—Session 1854-55; Prize—Mr. Arthur Lawrence; Mr. H. Howard Hayward. Certificate of Honour—Mr. E. M. C. Hooker; Mr. Walter J. Coulson. *Do. Senior*—Session 1855-56; Certificate of Honour—Mr. E. M. C. Hooker; Mr. Arthur Lawrence. *Do. Junior*—Session 1855-56; Prize—Mr. James Henry Jeffcoat. Certificate of Honour—Mr. Henry Ubsdell. *Medicine*—Session 1855-56; Prize—Mr. E. M. C. Hooker. Certificate of Honour—Mr. Walter J. Coulson, Mr. Mark Farrant, equal. *Surgery*—Session 1854-55; Prize—Mr. George Green Gascoyen. Do.—Session 1855-56; Prize—Mr. O. O. Rogers. Certificate of Honour—Mr. Mark Farrant. *Botany*—Session 1854-55; Prize—Mr. H. Howard Hayward. *Materia Medica*—Session 1854-55; Prize—Mr. E. M. C. Hooker. Certificate of Honour—Mr. Mark Farrant; Mr. O. O. Rogers. *Midwifery*—Session 1854-55; Prize—Mr. O. O. Rogers. Certificate of Honour—Mr. E. M. C. Hooker; Mr. James Teevan. *The Dean's Prize for General Proficiency in Anatomy, Medicine, Surgery, Chemistry, Midwifery, and Materia Medica*—Session 1854-55; Prize—Mr. George Green Gascoyen. A vote of thanks was then proposed to the Chairman, and a most warm expression of acknowledgment of the services of the Dean (Mr. Spencer Smith) concluded the proceedings.

Registrarship of the University of London.—This office has been vacant about a month by the decease of Dr. Rothman, who held it from the establishment of the University, nearly twenty years ago. Many candidates are in the field, some founding their claims solely on their scientific or literary reputation; others bringing forward the additional claim of having earned their good name as alumni of the very University in which they now aspire to office. To ourselves there seems but one course which the Council can pursue, in the election, consistently with common sense and equity. If it be requisite for the efficiency of the University, that the Registrarship should be held by the profoundest scholar, or mathematician, of the day, then let it be thrown open to universal competition. But if the only necessary qualifications, be, as we believe, simply high character, competent scholarship, business habits, and a desire to promote the welfare of *alma mater*, there surely can be no reason whatever for not bestowing the office on any graduate who has shown himself capable of fulfilling its duties. We will only add, that if in twenty years the University of London has not produced a competent man, the Council stands self-condemned, and the sooner there is a change of government, the better.

The late Dr. Clutterbuck.—The following particulars, in addition to those already given, connected with the career of Dr. Clutterbuck, will be read with interest:—Dr. Clutterbuck was the youngest of five sons and four daughters. His father resided at Marazion. The Clutterbuck family originally came from Fareham in Hampshire, where they possessed a moderate fortune in landed property. Dr. Clutterbuck's grandfather first came into Cornwall as a lieutenant in the army, and governor of the Star Fort in the Isles of Scilly. Some of the family took up their residence a Marazion. After the death of Dr. Clutterbuck's father, the widow and family went to live at Truro. The eldest son became a solicitor, a deputy recorder of the borough, and coroner for the county. The Doctor was articled to a Mr. Lambe, a Surgeon in good practice; at the age of 21 he went to London, and in his 23rd year passed his examination at Surgeons Hall, 1790. His first residence in London was in Walbrook; and he employed his leisure in editing a bi-monthly review, called the *Medical and Chirurgical Review*. This periodical was the means of bringing him into notice. He graduated at Glasgow in 1804; and subsequently settled in St. Paul's Churchyard, and discontinued the Review in 1807. He was elected to the Aldersgate Dispensary in 1807, and then published his work on Fever. In 1808 he removed into his late residence in Bridge-street, where he wrote only after long intervals. We stated that the Doctor died of bronchitis; this is only partially true. He had the misfortune about eight weeks since to be knocked down by a cab as he was walking from his carriage; and from this accident he never recovered, and his old foe bronchitis finished his career.

English Medical Officers among the French Sick.—General Espinasse, on his way from the Crimea to France, visited General Storks at Scutari, to thank him for the services of the English Military Medical Officers at the French Fever Hospitals. General Parisel, commanding the French troops at Constantinople, writes to General Storks as follows:—[Translation]—"Constantinople, April 20. Mon General,—I learn that some of the Medical men whom you have been good enough to place under me, are recalled to England. Permit me to beg your Excellency to express to them my gratitude for the care, the zeal, I may even say the affection, which they have shown in the treatment of our sick. This cruel epidemic, the progress of which was at first so rapid, has diminished in so extraordinary a manner that we hope soon to see its termination. The number of the other sick having also greatly diminished, a considerable portion of our sanitary staff are at liberty, and this makes it a duty to retain the English Surgeons no longer, but to place them at your Excellency's disposal, begging you to be the interpreter of my profoundly grateful sentiments. As to you, General, who have shown such eagerness in coming to our aid, accept the new assurance of my respectful devotion.—The General of Brigade, Parisel."

Twin Births.—The Registrar of Charles-the-Martyr district, Plymouth, says, "the number of twins is remarkable, 8 double births having been registered in the March quarter;

two more cases occurred, but as the children were still-born no entry could be made of them." The births of twins are also noticed in Falmouth, and in a northern district, Chorlton-upon-Medlock, where one quadruple birth has been registered (three boys and a girl), together with six twin births. It is difficult to say whether these births thus occurring are referrible to any general law, or are merely accidental fluctuations of small numbers.

APPLICATION OF NITRATE OF SILVER TO THE FAUCES IN SCARLATINA.—Dr. Macfarlan states that the plan has proved very successful, in his hands, of applying a strong solution of nitrate of silver to the fauces, at the very onset of scarlatina, thus at once cutting short the inflammation of the throat. —*New York Journal*, September, p. 200.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	8	4	6	5	3
North	490,396	5	3	9	12	5	11
Central ..	393,256	3	5	4	5	1	5
East.....	485,522	5	4	5	11	3	15
South	616,635	3	7	13	14	1	14
Total..	2,362,236	16	27	35	48	15	48

DEATHS IN PUBLIC INSTITUTIONS for the Week ending May 10:—

	Males.	Females.	Total.
Workhouses	76	61	137
Prisons	1	1	2
Military and Naval Asylums ..	4	..	4
General Hospitals	30	20	50
Hospitals for Special Diseases ..	9	4	13
Lying-in Hospitals	4	..	4
Military and Naval Hospitals ..	13	..	13
Hospitals for Foreigners, etc. ..	1	..	1
Lunatic Asylums	1	4	5
Total	139	90	229

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, May* 10, 1856.

Causes of Death.	In the Week ending Saturday, May 10, 1856. Deaths of Persons. At all Ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 44·3						50·1
ALL CAUSES	1154	557	180	162	194	39	1009·0
SPECIFIED CAUSES	1129	555	180	162	193	39	1002·3
DISEASES:—							
1. Zymotic Class	236	181	20	11	21	3	200·1
2. Dropsy, Cancer, and others of uncertain seat	50	9	6	16	16	3	44·9
3. Tubercular Class	234	95	88	43	8	..	193·9
4. Of Brain, Nerves, etc. ..	125	46	14	27	35	3	118·1
5. Of Heart, etc.	52	3	9	16	24	..	41·3
6. Of Respiratory Organs ..	179	102	12	20	38	7	170·2
7. Of Digestive Organs ..	62	23	13	12	14	..	64·6
8. Of Kidneys, etc.	15	3	4	5	2	1	13·1
9. Of Uterus; viz. — Puerperal Disease, etc. ..	13	..	8	3	2	..	12·0
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	7	3	2	2	..	..	9·4
11. Of Skin, etc.	4	2	..	1	1	..	2·2
12. Malformations	6	6	..	..	..	..	4·3
13. Debility from Premature Birth, etc.	37	37	..	..	..	..	26·3
14. Atrophy	40	31	..	2	7	..	30·0
15. Age	40	..	..	..	20	20	42·1
16. Sudden	7	4	..	1	1	1	7·8
17. Violence, Privation, etc..	22	10	4	3	4	1	22·0
CAUSES NOT SPECIFIED.. ..	25	2	..	..	1	..	6·7

MORTALITY NOTABILIA.—Since the middle of April, when in an improved state of the temperature the deaths in London were reduced to little more than 1040 in a week, the mortality has shown a tendency to increase. Last week the deaths rose to 1154, the effect, probably, of atmospheric change, the mean weekly temperature, which had risen to 48·5°, having afterwards fallen to 41·3°. In the ten weeks corresponding to last week of the years 1846-55, the average number of deaths was 1009, which, if raised proportionally to increase of population, becomes 1110. Hence the rate of mortality last week was above the average.

TO CORRESPONDENTS.

THE Report of the important Trial of William Palmer, which in its varied circumstances turns out to be of paramount interest to the Medical Profession, must be our apology for the non-insertion of various articles in type, in the several departments of this Journal. For the same reason, numerous answers to Correspondents are deferred.

COMMUNICATIONS have been received from—

Mr. T. H. HUXLEY; THE ROYAL INSTITUTION; M.R.C.S., L.S.A.; THE ST. GEORGE'S HOSPITAL MEDICAL SCHOOL; Mr. W. B. KESTEVEN; Mr. R. I. COUCH; Mr. J. C. S. JENNINGS; Dr. RADCLIFFE; Mr. D. R. MORRIS; Dr. H. BRAMWELL; Dr. BAINES; Dr. THOMAS HILLIER; Mr. HENRY GUY; Dr. ANDREW SMITH; Mr. J. LEIGH; SCOTUS; Mr. RICHARD GRIFFIN; Mr. W. C. SMALL; Mr. J. E. SOWERBY; Mr. J. J. FOX; M.D.; Dr. W. WOOD; Dr. RAMSKILL; Dr. DAY; Mr. T. B. AUSTIN; Mr. F. T. BOND, Paris; THE ROYAL LONDON OPHTHALMIC HOSPITAL; THE CRIMEAN MEDICAL AND SURGICAL SOCIETY; Mr. JAMES COOPER; THE UNIVERSITY OF ST. ANDREW'S; A SUBSCRIBER; Dr. DRUITT; ST. MARY'S HOSPITAL, etc.

APPOINTMENTS FOR THE WEEK.

MAY 17. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m.: Professor Hewett "On the Anatomy, Injuries, and Diseases of the Head."

MEDICAL SOCIETY OF LONDON, 8 p.m.

ROYAL INSTITUTION, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."

ROYAL BOTANIC SOCIETY, 3¾ p.m.

19. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

CHEMICAL SOCIETY, 8 p.m.

STATISTICAL SOCIETY, 8 p.m.: Subjects—Frederick Hendriks, Esq., "On the Loss Sustained by Government in Granting Annuities."—Samuel Fenwick, Esq., M.D., "On the Effects of Overcrowding and Want of Ventilation on Cholera."

20. *Tuesday.*

Operations at Guy's, 1 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m.: Professor Hewett "On the Anatomy, Injuries, and Diseases of the Head."

PATHOLOGICAL SOCIETY, 8 p.m. Council meets at 7.

ROYAL INSTITUTION, 3 p.m.: T. A. Malone, Esq., "On Photography."

PHARMACEUTICAL SOCIETY, 12 noon. *Anniversary.*

21. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8½ p.m. *Lettsomian Lectures.*—Dr. Garrod "On the Nature and Treatment of Gout in its Latent and Developed Forms."

HUNTERIAN SOCIETY, 8 p.m.: Mr. John Adams "On Tumours of the Breast."

GEOLOGICAL SOCIETY, 8 p.m.: "On the Influence of Ocean Currents on the Formation of Strata." By C. Babbage, Esq., F.R.S. Communicated by Dr. Fitton, F.G.S.

22. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

ROYAL COLLEGE OF SURGEONS, 4 p.m.: Professor Hewett "On the Anatomy, Injuries, and Diseases of the Head."

ROYAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m.: Professor Tyndall "On Light."

23. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 3½ p.m.: F. A. Abel, Esq., "On Some of the Applications of Chemistry to Military Purposes."

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE III.

Occupying the lowest rank in the scale of life is a great group of organisms, whose proper place, whether in the animal or the vegetable kingdom, has been a matter of frequent and violent controversy. Of late years, the persevering energy of a zoologist, Professor Ehrenberg, had at one time well nigh succeeded in obtaining the general sanction of Naturalists to the admission of all these doubtful forms into the animal kingdom. The microscope, in fact, revealed clearly to the distinguished German investigator, that organisation is by no means correlative with size; and careful investigation showed, that many even of the minuter of these "Infusoria," (or inhabitants of pools, and infusions,) are inseparably allied with others of much larger size, and no slight complexity of organisation. It was, therefore, extremely natural to suppose, that even where the evidence of structure was less clear, it nevertheless existed,—to ascribe its apparent absence to the difficulties of observation,—and hence to insist, with an arbitrariness and pertinacity which at the present day seem not a little unphilosophical, upon ascribing to every clear space and to every granule, functions corresponding with those possessed by the great organs of the higher animals.

Modern research, conducted with better instruments and guided by a more careful and critical spirit than that exhibited by Ehrenberg, has shown that his "Infusoria" is a most heterogeneous assemblage, of plants, of lowly organised animals, and of others higher in the scale, grouped together without a single character in common, unless it be that of "minute creatures which live in the water."

Of the two groups, the Polygastria and the Rotifera, into which Ehrenberg divided this immense aggregation, the latter are now on all sides admitted to be true Annulosa. Of the Polygastria, on the other hand, the larger moiety, consisting of the Monads, Vibriones, Volvoces, and Bacillariæ, are unquestionably plants belonging to the division of the Algæ; and it is more than probable that some of the Amœbæ belong to the same category.

The "Polygastria" are thus reduced to the Amœbæa Arcellina, Vorticellina, Ophrydina, Enchelia, Colepina, Trachelina, Ophryocercina, Aspidiscina, Kolpodea, Oxytrichina, and Euplota. The first two of these families, however, differ widely from the rest, in the absence of any permanent ingestive aperture; and in none has the existence of a number of stomachs as yet been demonstrated. I see no reason, therefore, for retaining either Professor Ehrenberg's name, or the group itself in the limits which he assigns to it, (a) and excluding the first two families, which may properly be regarded as the centres of the great classes of Spongiadæ and Foraminifera, I propose to denote the rest by the old term of "Infusoria," a name which is appropriate so far as their general habits are concerned, and has the great merit of involving no theory of structure.

These "Infusoria," however, form only a small portion of a great sub-kingdom—the lowest in the scale of organization, to which the name of "Protozoa" may be fitly applied—and which embraces in addition, the Spongiadæ, the Foraminifera, or Rhizopoda, and the Gregarinidæ, together with the minor groups of the *Noctilucidæ* and the *Thalassicollidæ*. The excessively slight functional differentiation in these elementary beings, renders it far more difficult to define the Protozoa by positive, than by negative characters. Negative characters, however, are only to be suspected when they are the expression of ignorance,—a negation which results from careful investigation being, in one sense, a positive character. Thus, the absence of any distinct alimentary canal, and of any nervous system, of any differentiation into serous or tegumentary, and mucous or intestinal, layers, are, so far as they are universally ascertained facts in the Protozoa, as much positive characters of the sub-kingdom as those peculiarities which may be expressed in a more strictly positive form, viz., the general tendency among them to undergo the encysting process, as a preliminary to fissive multiplication; the very general, if not invariable, possession of a central solid particle not unlike the so-called "nucleus" of a histological cell; and the very frequent existence of what are known as "contractile spaces," in their substance.

The homogeneousness of, or at least absence of any *cellular* structure in, the tissues of the Protozoa, combined with the presence of the central nucleus-like particle, has led to the comparison of the Protozoa with the histological elements known as "nucleated cells." They have been called "unicellular animals;" but, as we shall see, the analogy is, at best, but a very distant one.

The *Protozoa* are divisible into two great groups: 1. The Astomata, or those which are unprovided with any permanent oral aperture—*Gregarinæ*, *Rhizopoda*, *Spongiadæ*, *Thalassicollidæ*. 2. The Stomatoda, which have a permanent oral aperture, and a rudiment of an alimentary canal—*Infusoria*, *Noctilucidæ*.

Protozoa Astomata.—All the forms of these Protozoa, however variable, may be referred to the type either of the Amœba or of the Gregarina; these again being themselves separated by such slight differences that they are rightly to be considered as modifications of a single plan.

The *animal* amœba (there appear to be vegetable forms, only distinguishable by the feeding test) is an inhabitant of pools and infusions, presenting an appearance of wonderful simplicity, and appearing at first as a minute mass of jelly, whose form varies from one moment to another in the strangest manner, processes being pushed out, first in one direction and then in another, the body gradually, as it were, flowing into these diverticula, and so progressing irregularly from one point to another of the supporting surface. The processes thus serving as feet are called *pseudopodia*, a name which hardly does justice to their multifarious functions, inasmuch as they perform at the same time the offices of arms and lips. Whenever they meet, in fact, with any nutritive matter, they seize and envelope it, and the substance is thus not so much swallowed as thrust into the body, which sometimes becomes completely impaled, if the object seized be long and filiform. It would not appear that much selection is exercised; grains of sand and other apparently useless matters being taken in together with the diatomaceæ, which form the proper food of the animal. The ingested particles are carried about for a while, and the rejectamenta are then allowed to pass out by any part of the body—definite anal and oral apertures being alike absent.

The only further organization visible consists in one or more clear spaces which make their appearance like a sudden opening in the substance of the body, and as suddenly disappear again, to re-appear after an interval. There is no real opening, however, but simply an accumulation of clear fluid in one part of the substance of the body, which disperses as rapidly as it was accumulated. We shall by-and-by find the possession of these "contractile spaces" to be a very characteristic feature of the Protozoa in general.

Besides the contractile space or spaces, some amœbæ, at any rate, if not all, present a "nucleus," a solid, more strongly refracting particle, placed in the centre of the body. This structure is equally characteristic for the majority of the Protozoa. Auerbach maintains that the presence of the nucleus is invariable, the *Arcellæ* even containing many; and that the body of all amœbæ is bounded by a distinct membrane. He made the interesting observation, that the body of *A. limbosa* contains starch-granules, apparently not derived from without.

The amœba has not been observed to undergo fission; but, in the closely allied difflugia, Schneider describes a process of gemmation. In difflugia, the greater part of the body is surrounded by a definite wall, the pseudopodia being confined to one region, which at the same time serves as mouth and arms. At certain times, the place of the pseudopodia is taken by an oval protrusion of the substance of the body, which gradually acquires a coat and nucleus, and all the features of a new difflugia. And it is this process of generation, according to Schneider, which has been taken to be an act of conjugation.

The observations of Schneider and Auerbach show that the amœba may become encysted, gradually enclosing itself in a membranous sac, and passing into a still condition. Whether

(a) In dealing thus freely with Professor Ehrenberg's views, I trust I shall not be suspected of undervaluing his eminent, and, in many respects, admirable investigations, without which this branch of zoology would never have reached its present position.

any development of germs, similar to that which occurs in other Protozoa after encysting, takes place, is not ascertained.

A *Gregarina* is a simple mass of granular, and usually transparent, substance, whose outer boundary presents, more or less distinctly, the aspect of a membrane, while its interior contains a clear spheroidal space, in the centre of which is a nucleus-like particle; so that the whole animal has a singular resemblance to an ovum. There is no contractile space, nor has the ingestion of solid aliment ever been observed to occur, the sole ordinary manifestations of vitality consisting in an incessant change of form, the body elongating now more in one direction, now more in another, or presenting a sort of undulation in its outline. No elongated pseudopodia—like those of the Amœbæ, however — are ever thrust out by adult Gregarinæ. The Gregarinidæ vary much in size and aspect; some, like the genus *Didymophyes*, attaining a length of as much as five lines, while others do not surpass a few thousandths of an inch. In the *Monocystis* of Stein, their form is rounded or oval, and they have no appendages of any kind; in the *Gregarina* of the same author, the body is divided into two chambers, one of which contains the nucleus, by a constriction. In others, again, one end of the body is armed with a circlet of readily-detached hooks, analogous in form and function to those of the Trematoda.

The reproductive processes of the Gregarinidæ are very remarkable, their apparent resemblance to the phenomena of conjugation in the lower plants giving them an especial interest. Unlike almost all other Protozoa, they have not been observed to undergo either fission or gemmation; but, at a certain period in their development, two Gregarinæ approach one another, and becoming mutually applied and flattened, each eventually assumes a hemispherical form. A transparent substance is now exuded, and forms a cyst around the conjoined bodies. After a while, it is observed that their contents have undergone a change, breaking up into a great number of minute, closely-packed, spindle-shaped bodies, which, from their resemblance to some Diatomes, have been called *pseudo-Navicellæ*. Each of these, when fully formed, consists of a structureless external case, containing a slightly granular, gelatinous substance. When the pseudo-Navicellæ are ripe, the containing cyst becomes resolved or bursts, and they are set free; and Lieberkühn has lately shown that, if in an appropriate situation, each pseudo-Navicella in its turn bursts, and give rise to a minute amœbiform Gregarina, which gradually enlarges, and assumes the form characteristic of its species.

The reproductive process of the Gregarinæ, accompanied as it is by an act of union of the previously separate individuals into one mass, so strongly resembles the conjugation of the lower Algæ, that one is readily led to Stein's conclusion, that the object of the two processes is the same; and that we have here in the animal kingdom a true act of conjugation as an essential prelude to the multiplication of the species. More closely examined, however, the so-called "conjugation" of the Gregarinæ presents features so essentially different from those exhibited by the Algæ, as to excite grave doubts whether its import can really be the same. For it is found, in the first place, that some species of Gregarinæ, those of which Stein forms the genus *Zygocystis*, become united at a very early period of their existence, the conjugation apparently having no effect upon their further growth and development; secondly, there is a very general agreement among observers, that in the act of conjugation the applied walls of the two Gregarinæ do not disappear, and, therefore, their contents do not become mixed till after the development of the pseudo-Navicellæ has commenced; thirdly, there is evidence brought forward by Lieberkühn, to the effect that the pseudo-Navicellæ may be developed in Gregarinæ which have never conjugated; and, lastly, Stein himself states that more than two Gregarinæ may unite together.

It would appear, therefore, that the "conjugation" of the Gregarinæ more resembles that of the Actinophrys than that of the Algæ. There is no evidence at present of its being essentially connected with reproduction.

The *Gregarinæ* inhabit the intestines of invertebrate animals —Insects, Worms, and Molluscs, and have not been discovered in the alimentary canal or other organs of the Vertebrata. In this class they appear to be represented, however, by very closely allied organisms, the *Psorospermiæ*.

Johannes Müller, in 1841, gave this name to some very ingular minute bodies contained within sacs parasitic upon the skin and gills, and in the internal organs of many fishes. The Psorospermiæ are pyriform sacs, frequently provided with an elongated, filiform, motionless appendage, and containing two or four clear rounded bodies, attached side by side within their smaller ends; and besides these, as Lieberkühn has lately pointed out, a rounded mass of plasma. Under fitting conditions, the Psorospermiæ burst, and the plasmatic mass emerges as an Amœbiform creature. The sacs in which the Psorospermiæ are developed, on the other hand, can be traced back to Amœbiform masses full of granules; and it seems a legitimate conclusion that the Psorospermiæ are the pseudo-Navicellæ of an Amœbiform Gregarina or Gregarinoid Amœba.

What has been said suffices to show that no very strict line of demarcation can be drawn between Amœba and Gregarina.(b) Some of the latter are said to present no nucleus, and their non-ingestion of solid aliment must be regarded in connexion with their parasitic mode of life, and with the fact that the very young Amœbæ, according to Auerbach, are equally devoid of the power of ingestion of solids. The other Protozoa Astomata may be best comprehended as aggregations of these simplest forms. Thus the *Spongiadæ* are aggregations of Amœbæ, which develope a *spicular* or *filamentous* skeleton, and usually become permeated by aquiferous canals.

The *Foraminifera*, or Rhizopoda, are similar aggregations, with a *locular* skeleton and without aquiferous canals.

The *Thalassicollidæ*, lastly, present a skeleton partly corresponding with that of the Foraminifera, partly with that of the sponges; but the animal more nearly resembles a mass of Gregarinæ imbedded in a jelly.

The *Spongiadæ*.—*Halisarca* and *Duseideia*,—mere masses of a gelatinous substance, which readily break up into amœbiform particles, but which are said to possess no aquiferous canals,—would seem to be the simplest forms of this class. Halisarca appears to possess no hard parts; but in Duseideia a sort of adventitious skeleton is formed by the aggregation of particles of sand, etc. While the one form, then, might be regarded as an aggregation of Amœbæ, the other has more the habit of Difflugia. *Cliona celata* approaches Duscideia in its simplicity, but fabricates a sort of skeleton of its own, consisting of little superficial, facetted, silicious particles. The habit of this Sponge is to burrow in old shells, and there are few of the scollop, oyster, or whelk shells thrown up on the sea-shore which do not exhibit traces of its ravages; commencing at some one point, it tunnels through the middle layer of the shell in various directions, forming a network, whose pattern is peculiar to each species, and which communicates with the exterior every here and there by round apertures, through which a yellow papilla of the Sponge protrudes. The precise mode in which this apparently helpless creature cuts its way through such hard substances is, perhaps, as yet not quite clearly understood; but there is much in favour of Mr. Hancock's ably supported hypothesis, — that the angular superficial spicula are ground against the walls of the burrow by contractions of the substance of the Sponge, and act thus like so much sandpaper.

In the ordinary Sponges, whether marine or fresh-water, a far more complete skeleton is developed, and a distinct system of canals brings the deeper parts of the often very thick mass into relation with the surrounding medium, by means of a double set of apertures, one serving as inhalent, and the other as exhalent, pores.

The common fresh-water Spongæ, *Spongilla fluviatilis*, forms large incrusting masses, whose superficial layer is usually green, while the deep is yellow, and whose surface presents large apertures,—the exhalent vents, scattered among many smaller, the inhalent pores. The vents lead into a series of wide canals, which ramify irregularly through the substance of the sponge, finally breaking up into a network of lacunæ, connected with the inhalent pores. A number of membrano-fibrous plates and bands, the *keratose* fibres of Mr. Bowerbank, radiate from the attached surface, and form the main framework of the Sponge. In their deeper parts, they contain innumerable bundles of exclusively rod-like, silicious spicula; but, in the more superficial, peculiar spheroidal spicula, covered with blunt points, are abundantly scattered among the former kind.

(b) Doubts have been thrown upon the independent nature of the Gregarinæ, some having even maintained them to be young conditions of Nematoidea; but no sufficient ground has yet been shown for such speculations.

The fibro-spicular skeleton, thus formed, is enveloped on all sides, so as only to leave spaces constituting the lacunæ and canals, by a gelatinous mass, which in winter is easily broken up into Amœba-like particles, containing a distinct "nucleus and nucleolus;" while in summer, according to Lieberkühn, many of them are, in addition, provided with long cilia.

At certain seasons of the year, the deeper parts of the Spongilla contain a multitude of minute, hard, yellow bodies, the so-called "seeds." They consist of an outer tough coat, containing peculiar radiating spicula, similar in form to two toothed wheels, united by an axle, and hence called *Amphidisci;* and presenting a pore or aperture at one point of its surface. Within the seed is a mass of motionless granular cells; and Mr. Carter states that, if the "seed" is placed in water, these cells make their exit, and give rise to new sponge masses.

Lieberkühn, however, has recently described very remarkable large ciliated granules, or "swarming spores," which he believes to be derived from the contents of a "seed;" and, besides, these structureless cysts, of $\frac{1}{300}$ of an inch in diameter, containing bodies like spermatozoa. Lieberkühn attempted to trace these to the "porus" of the seed, but failed in so doing.

In the Marine Sponges the structure is fundamentally similar, the principal differences consisting inthe greater distinctness of the skeleton, which, in the sponge of commerce, for instance, constitutes a strong keratose framework; in the greater or less proportion of the silicious or calcareous element, which, almost absent in the common sponge, predominates in some West Indian forms, so as to replace almost completely the keratose element; in the occasional presence of a system of canals ramifying through the keratose fibres; in the greater distinctness and prominence of the exhalent apertures, which are frequently mounted on crater like elevations, and in the force of the currents to which these give exit. In the genus *Grantia* distinct cilia have been found at the commencement of the efferent canals, which are, doubtless, the cause of the currents, and the presence of similar organs may be discerned, though it has not yet been demonstrated, in other genera.

Fig. 1.

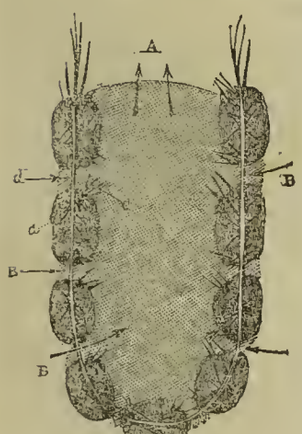


Diagram of *Grantia*.—A. Exhalent aperture. B. Inhalent apertures. C. Cilia.

No seed-like bodies have, as yet been detected in the marine sponges; but they give rise to ciliated granules, probably buds, detached from the lining of the aquiferous canals, —which become fixed, and develope into new sponges.

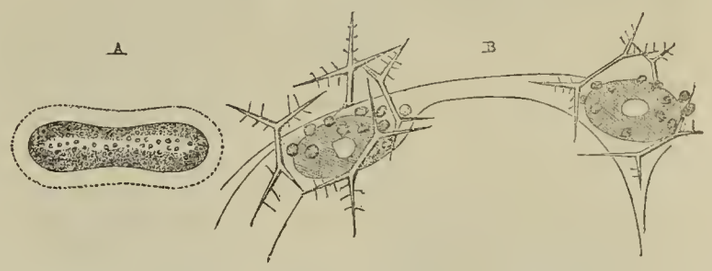
The majority of the marine sponges have silicious spicula; but in Grantia the abundant spicula are composed of carbonate of lime, a fact which should be borne in mind in considering the affinities of Foraminifera, Polygastrica, and Thalassicollæ. Sponges vary very greatly in their external form, presenting every variety, from flattened and globular masses, to tree-like or flabellate expansions, or to deeply-excavated cups. They abound in the waters of all seas, and have existed from the time of the deposit of the Palæozoic strata. Their greatest abundance in a fossil state, however, is in the chalk, where they are found associated with very remarkable bodies, called *Ventriculites*, whose true nature has been the subject of much discussion. The substance of the Ventriculite is composed of a network of delicate fibres, arranged so as to enclose regularly cubic spaces, the angles of the cubes being, as it were, strengthened by oblique ties, which themselves again enclose cubical spaces. This network forms a thin expansion, which is frequently plaited and folded upon itself, and disposed so as to form a great cup. The probabilities seem to be in favour of the sponge nature of the Ventriculite and its allied *Brachiolite*.

The genus *Tethya* is closely allied to the true sponges in structure; but, as I pointed out in an Australian species some years ago, it has the remarkable peculiarity of developing well-marked ova and spermatozoa, which are mixed together in the inter-trabecular substance of the spheroidal mass.

Thalassicollidæ.—The singular Protozoa, which I formerly described under the title of Thalassicolla punctata, and which have been subsequently divided by Professor Müller into the subgenera Sphærozoum (Meyen) and Collosphæra, would appear to unite structural peculiarities found separately in the Spongiadæ, Gregarinidæ, and Foraminifera.

These Thalassicollidæ (at least so far as the more ordinary form, *T. punctata*, is concerned) are gelatinous rounded bodies, of very variable size. They consist of a central and cortical portion, the former being constituted by a coarsely vesicular structure, the latter forming a mere thick gelatinous coat. It is in this coat, towards its inner surface, that we find scattered a great number of oval cellæform bodies, with a conspicuous round central nucleus, thus rather resembling the Gregarinoid than the Amœbiform type of structure. Each of these cells appears to be without any direct connexion with the others. A radiating fibrillation is, however, occasionally observed in the gelatinous surrounding substance, and each serves as a centre around which a number of minute, yellowish-green vesicles are disposed. The large cells, with their satellite colour vesicles, are again enclosed within a silicious skeleton, either in the form of spicula or of a thin, perforated, hollow sphere; or else, of a sphere produced into little tubes here and there. In the latter forms peculiar crystals of some earthy sulphate are found within the large cells.

Fig. 2.



Thalassicolla punctata.—A. A mass of the natural size. B. Two of the oval cellæform bodies, with their coloured vesicles and spicula.

Much obscurity hangs over these bodies, whose structure obviously presents interesting analogies with the Sponges and Rhizopods, more particularly with those silicious skeletoned Rhizopods, called by Ehrenberg Polycystineæ. They occur in almost all seas, sometimes in enormous quantities, and are among the commonest products of the towing-net.

Rhizopoda, or Foraminifera.—Every handful of sea-sand, every shaking of a dried sponge, and the contents of the stomachs of most Lamellibranch Molluscs, are pretty sure to exhibit a considerable admixture of minute calcareous, or occasionally silicious, bodies, having, for the most part, the aspect of elegantly sculptured spiral-chambered shells, which usually present perforations or apertures of various dimensions. Not only do these "Foraminifera" form a very important constituent of the existing sea-bottoms, but a member of the group, the Nummulite, accumulated in such masses during the Older Tertiary period, as to form masses of rock since quarried by man, and applied to the construction of some of his most enduring monuments—the Pyramids.

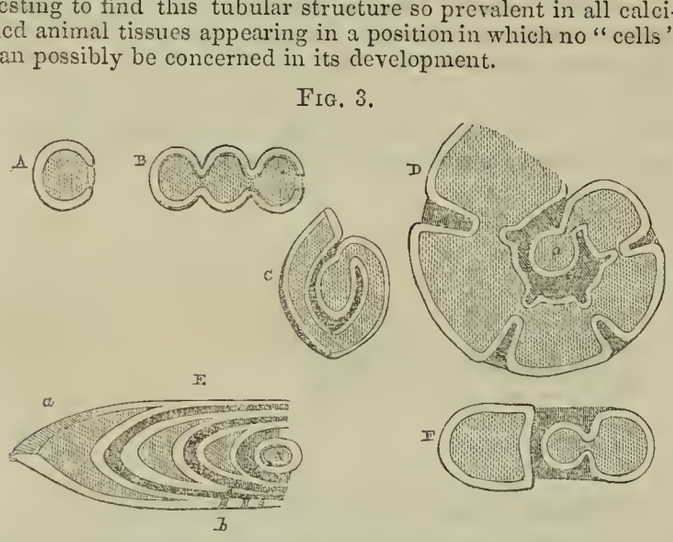
During life these curious shells are animated by a mass of gelatinous matter, whose sole evidence of vitality is the protrusion and retraction of root-like soft processes, similar to the pseudopodia of the Amœba—a peculiarity upon which the other denomination of the class, that of "*Rhizopoda*," is based. Little is known positively with regard to the structure of the soft mass, in consequence of the difficulty attending its examination. It might be expected that it would present a nucleus and a contractile vesicle like the Amœbæ, and such structures do exist, in fact, in Arcella, Gromia, etc.; but Schulze, who lately had the opportunity of examining Triloculina in a very young and still transparent condition, was unable to detect either. The shell or skeleton appears to be a horny, calcareous, or silicious deposit on the outer layer of the plasma of the body; and it may be continuous or may be perforated in various ways. It consists either of a single chamber or of many chambers; and in the latter case the mode of arrangement of the chambers forms the basis of the distinction of the families and genera.

The Rhizopods, which never develope more than one chamber or loculus, are called *Monothalamia*. The loculus may be

either spheroidal and horny, as in the *Arcellæ*, or spiral and horny, as in *Cornuspira;* or spheroidal, calcareous, and perforated by many considerable apertures, as in *Orbulina*.

The multilocular Rhizopods are termed *Polythalamia*. In their youngest condition they are unilocular (A); but, as the animal increases, successive chambers are added in a definite pattern for each family of the order. Of these Schulze establishes three; the *Helicoidea*, in which the loculi form a series coiled or folded upon itself (C D); the *Rhabdoidea*, where they extend in a straight line (B); and the *Soroidea*, where they are irregularly aggregated. All the loculi communicate with one another by means of narrow apertures, or necks; so that one of the Rhabdoidea has the aspect of a beaded rod; the distal extremity of the last-formed loculus presenting an aperture commonly but improperly termed the mouth. The walls of the loculi exhibit no other large apertures, but they are usually traversed perpendicularly to their planes by very fine close-set tubes or canals; so that in section, the wall has somewhat the appearance of a layer of dentine, or of a crustacean carapace. In a general point of view, it is very interesting to find this tubular structure so prevalent in all calcified animal tissues appearing in a position in which no "cells" can possibly be concerned in its development.

Fig. 3.



Diagrams of Foraminifera.—A. Monothalamian. B. C. Polythalamian. D. Horizontal, and F. Vertical section of Helicoid form.

Suppose, now, that the successive cells of which a *Nodosaria* is composed, instead of being arranged in a straight line, were coiled in a close, flat spire (D E): the result would be essentially a helicoid form, such as *Polystomella*, and an irregular space would be comprised between the outer surfaces of the walls of the successive layers of the skeleton, sending in processes between every pair of anterior and posterior walls of contiguous cells, around their constricted necks of communication.

If the process of calcification extended no further, there would be a great space formed, partly by the intervals left between the whorls and above and below them, (intergyral and perigyral spaces,) partly by the intervals communicating with these, left between the septa (interseptal spaces).

But it ordinarily happens that the process of calcification produces a much greater complication in the form of the spaces. In the first place, for every new cell which is developed, a fresh lamina (or fresh laminæ) appears to be added to the surface of the old cells.

Now in such forms as *Operculina*, (c) *Nonionina*, *Nummulites complanata*, and *Amphistegina gibbosa*, these lamellæ appear to be directly applied one to the other, and to be continuous throughout, without any large gaps either between the laminæ or in their substance. And thus the perigyral spaces disappear, while the intergyral and interseptal spaces either remain as such, or are broken up into channels and tubes, by the interposition of new calcareous bands and pillars, between their boundary walls. In *Nummulina lævigata*, and in *Orbitoides*, however, intervals are left between the successive perigyral lamellæ, interrupted only here and there; and hence we have so many perigyral chambers superimposed on the plane faces of the original ones (E).

Again, in *Polystomella crispa* the gaps are not horizontal and interlamellar, but are left in the substance of the lamellæ, and by their correspondence in different lameliæ, they give rise to large vertical tubes, perforating the thickened umbilical region. In *Faujasina* this is still better marked; the cells of the outer whorls are much deeper than those of the inner on their upper face, and hence there is a very large superior perigyral space. This is continuous above with interseptal spaces, which below and at the outer surface become broken into a series of tubes, which finally open externally. The intergyral spaces appear to be obliterated. The remains of the animal were, according to Professor Williamson, very visible in the wide interseptal and perigyral spaces.

A more sponge-like skeleton than any of these is found in *Orbitolites*, in which no interseptal spaces have been discerned, and in which the skeleton appears to be constituted, not so much by the aggregation of distinct loculi, as by the deposition of flattened, or cylindroid, calcareous trabeculæ, by which more or less regular locular spaces are intercepted.

Very little is known as to the reproductive processes of the Rhizopoda, the most important observations being those made by Schulze on Triloculina, which appear to show that this genus can multiply by a sort of fission of the soft parts. There is, as yet, no unquestionable evidence of the occurrence of conjugation in this class.

Protozoa Stomatoda: Infusoria.—The most easily studied, and therefore the best known of these creatures, are the *Vorticellidæ;* animals, which attracted the attention of the earliest microscopists, but whose wonderful vital phenomena have but lately, at the hands principally of Stein, received that elucidation which they deserve. Hardly a mass of duck-weed can be examined without exhibiting groups of graceful little creatures, like blue-bells upon their slender stalks, and creating active currents by means of the long and powerful cilia with which the margin of the bell is surrounded. The bell is not hollow, however, but solid, and its middle substance is continued for a short distance beyond its edge, when the animal is unfolded, terminating in a wide flattened expansion, with a prominent rim. Not only this rim, but that of the bell, are thickly ciliated, and between the two there is a groove, in one part of which a wide cavity, the mouth, is situated. A canal whose cavity, like that of the mouth, is abundantly ciliated, leads downwards towards the attached end of the body, and after taking a longer or a shorter, a straighter or a more curved course, suddenly terminates by a blind end in the midst of the soft substance of the mass of the body. A clear, transparent, "contractile space," or "vacuole," makes its appearance, and at intervals disappears again at the upper part of the body. Besides this, a well-fed *Vorticella* contains other clear spaces, which do not contract, but contain particles of the solid aliment which has been swallowed. The strong currents produced by the two bands already referred to, and by the cilia of the mouth, force any solid floating matters which come within their sphere, into the oral aperture, whence the cilia of the gullet drive them on to its cœcal end. Here they accumulate for a while, until they are gradually pushed, usually enclosed within a little spheroid of water, into that part of the substance of the body opposite which the gullet terminates, and becoming completely separated from it, form one of the non-contractile clear spaces, or "vacuoles." Once detached, they fall under the influence of a peculiar current, which keeps the various ingesta in a continual, sometimes spiral, but not very regular circulation. How this current is produced, whether by the constant contraction of the substance of the body, immediately behind the vacuoles, or by some other means, is not known; but its occurrence, not only in the *Vorticellidæ*, but in other Infusoria, such as *Loxodes*, is unquestionable. Cohn seems to consider that the activity of the circulation has some relation to the amount of chlorophyl contained in the body of that species; but, perhaps, the amount of the green coloration may merely be an indication of the general vital activity.

No anal aperture exists in the *Vorticellidæ*, nor is one certainly known in any other Infusorium. There is at most an "anal region," a softer part of the outer layer of the body, through which fæcal matters are extruded more readily than elsewhere; but in the majority of the Infusoria the rejecta-menta are evacuated by the mouth.

No muscular, nervous, or secreting organs can be detected in the body of the *Vorticella*, the only other structure besides those mentioned being a remarkably elongated solid body—the "nucleus," which, doubtless, corresponds with the "nucleus" of the Gregarinidæ. The stem of the *Vorticella* consists of a tubular continuation of the outer membrane of

(c) See, for a detailed account of the structure of these and other Foraminiferæ, the admirable papers of Carpenter, Williamson, and Carter.

the body, with a laterally situated longitudinal contractile filament.

Simple as these creatures are, and destitute as they appear to be of all the more perfect forms of physiological apparatus, they nevertheless exhibit great voracity and a marvellous sensibility to external impressions, folding in their terminal ciliated discs, and shrinking down by the helicine contraction of their stem on the least alarm.

Still more remarkable is the diversity and singularity of their reproductive processes. Of these, one — fission — is common to other Infusoria; while the next, gemmation, is almost peculiar to themselves; neither of these processes interfere with the full activity of their subject; but the other still more remarkable modes of multiplication are preceded by a very peculiar metamorphosis accompanied by the development of a structureless membranous cyst, in which the whole body becomes enclosed.

In multiplication by fission a little notch appears in the middle of the distal end of the *Vorticella*, and gradually proceeds towards the attached end, each half growing, rounding itself, and completing those parts in which it was deficient as the process goes on. During all this time, each half feeds and works its cilia uninterruptedly; and when the process is complete, two *Vorticellæ* at the end of a stem take the place of one; but it commonly happens that one or both develope a ciliated basal circlet, and swim away freely. In Gemmation, the end is the same, but the means are very different. A minute bud, at first structureless, appears either at the base of the body or on the stem. It gradually increases in size, and the characteristic structures of a Vorticella appear in it. Ordinarily, however, it does not remain attached to the stem. A circlet of cilia makes its appearance around its base; the bud then becomes gradually detached, and swims rapidly about with its wrong end foremost. After a while it fixes itself by this end to any solid body, the ciliary circlet disappears, and the young *Vorticella* gradually acquires a stem, and with it all the peculiarities of its parent.

When the *Encysting process* is about to take place, the body of the Vorticella becomes rounded, the ciliary circlets being drawn in as in ordinary retractation. The œsophagus is for awhile visible in the spheroidal mass; but after a time it vanishes, and the contractile vacuole now remains persistently dilated as a clear round space. At the same time, a clear membranous investment makes its appearance, in the form of a cyst inclosing the whole body, which is now called an *Acineta*, and either remains for a while attached to its stem, or becomes a detached and free floating organism, whose nature is indicated by nothing but the nucleus, which retains its primitive form. Exposed to unfavourable conditions, a *Vorticella* which has gone thus far may, as it were, retrace its steps, resuming its primitive form, and extricating itself from the cyst; but otherwise, still further changes take place. The soft contents take the form of a membranous sac lining the outer cyst, and the nucleus gradually breaks up into a number of minute monad-like particles. The outer cyst now gives way, and these are discharged through its openings—doubtless to become *Vorticellæ*.

In other cases the fate of the *Acineta* is different. The cyst and the included sac become closely united, the latter protruding long and delicate radiating filaments over the whole surface of the former, or more developed in lateral patches. At the same time the nucleus assumes a simply oval form. If in this condition the Acineta develope a stalk, it is called *Podophrya*. On the other hand, the stalkless forms have been long known under the name of *Actinophrys*. This Actinophrys must be carefully distinguished from another form, which bears the same name, but which is probably a Rhizopod. Both *Podophrya* and *Actinophrys* give rise to new *Vorticellæ*, but in a manner quite different from any of the processes yet described. The nucleus does not divide, but gives off a kind of bud at right angles to its general direction. A greater or less amount of transparent matter, derived from the body of the parent, in the neighbourhood of the nucleus, surrounds the free end of the process, and, as the latter gradually becomes constricted off from the mass of the nucleus, completely invests it. The little spheroid, with a central nucleus thus developed, assumes an oval form, constricted in the middle, where a circlet of cilia appears. These begin to play actively in the rounded cavity of the parent, in which the granule is contained. Increasing in size, this cavity at length gives way peripherally, and the young germ, strikingly similar to the Vorticella-bud, is launched into the surrounding water, and all trace of the chamber in which it was lodged disappears, to be re-developed only on the repetition of the process.

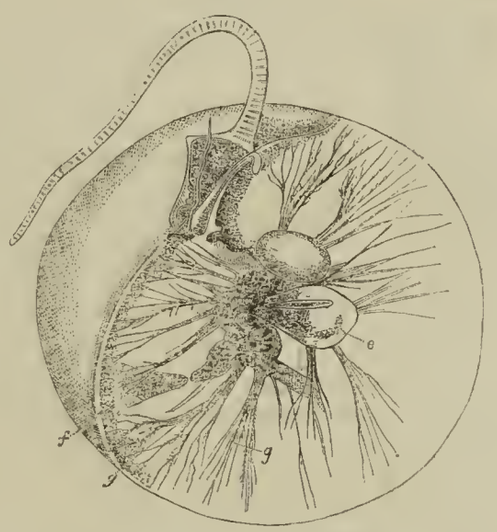
These reproductive processes appear to be wholly independent of the singular "conjugation," resembling that of the Gregarinidæ, into which not only two *Podophryæ* and two *Actinophrys*, but an *Actinophrys* and a *Podophrya*, or even three, four, or more *Actinophrys* have been observed to enter. The import of this "conjugation" is as little understood here as among the Gregarinidæ; but so far from being a necessary prelude to the processes of multiplication just described, I am not aware that nuclear-gemmation has ever been observed to occur in the conjugated forms.

Phenomena similar to those just described have been observed in almost all the other Infusoria, and are probably general in the class.

The two great types of the Infusoria are the soft bodied *Vorticellæ* just described, with no motor organs save ordinary cilia; and *Euplotes*, enclosed in a hard, transparent, closely-fitting case, and provided, not only with cilia, but with long and stiff motor processes, which, in their proportions and actions, resemble legs. In essential structure there are no very important differences between these types; and among the *Vorticellidæ* even *Spirochona* has a clear, hard lorica, while the *Vaginicolæ* and *Stentor* develope little cup-like cells resembling those of the Hydroid Polyps.

Chilodon and *Nassula* are remarkable for the existence of rod-like teeth, arranged around the buccal aperture; and this feature, taken in connexion with the position of the mouth in most Infusoria, far behind the apex of the body which overhangs it not unfrequently in a finger-like manner, and with the peculiar vacuolation of the body of *Trachelius*, in consequence of which the solid substance forms threads and bands radiating between the "nucleus" and the parietes —leads us naturally enough to the last division of the Stomatode Protozoa, that of which *Noctiluca* forms the type.

Fig. 4.



Noctiluca Miliaris —*e*. "Stomach." *g*. Radiating filaments. * Mouth † "Nucleus."

Noctilucidæ. *Noctiluca miliaris*, the sole representative of its family, in fact, appears to me to be essentially a gigantic Infusorium. It is a rounded mass, $\frac{1}{30}$th of an inch or less in diameter, presenting on one face a groove, bounded anteriorly by a long tentacle, behind which is a rounded mouth, bordered on one side by a hard dentate lip, and leading into a funnel-shaped gullet, whence a long flickering cilium is protruded. The gullet leads into a cavity of very various forms and dimensions, capable of great dilatation, and presenting no distinct walls, but rather excavated in the central substance of the body, which is connected with the parietes by numerous granular, radiating filaments. In front of the stomach is an oval nucleus-like body. Such are the most important structural features of Noctiluca. Of its development we know as yet nothing certain; nor have we any clue to the cause of the light which these creatures give out, a faculty which, from the enormous masses in which they herd together in the sea, renders them one of the principal sources of that phosphorence which is one of the greatest beauties of the ocean.

A COURSE OF LECTURES ON ORTHOPÆDIC SURGERY,

DELIVERED AT THE

Grosvenor-Place School of Anatomy and Medicine,

(ADJOINING ST. GEORGE'S HOSPITAL,)

IN THE

SESSION OF 1854-55.

By WILLIAM ADAMS, F.R.C.S.

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LECTURE VIII.

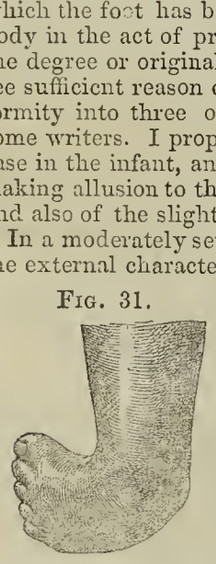
CONGENITAL TALIPES VARUS.

To-day, Gentlemen, we shall proceed to the consideration of congenital talipes varus, the most frequent form of congenital club-foot, and that to which the attention both of ancient and modern writers has been more especially directed.

External Characters.—The external characters of this deformity vary in several important respects according to the age of the patient, whether infant or adult, and the extent to which the foot has been used in sustaining the weight of the body in the act of progression. They also vary according to the degree or original severity of the deformity, but I do not see sufficient reason on this account for subdividing the deformity into three or four grades or degrees, as adopted by some writers. I propose to draw my description from a severe case in the infant, and also from a severe case in the adult, making allusion to the deviations in cases of extreme severity, and also of the slighter forms frequently met with.

In a moderately severe case of congenital varus in an infant, the external characters are as follow:—1. *The anterior part of the foot is turned inwards*, and forms a right angle with the leg in this direction. 2. *The sole of the foot* looks directly backwards, and the dorsum directly forwards. 3. *The inner edge* of the foot looks directly upwards, and the outer edge directly downwards, as shown in Fig. 31. 4. *The foot is necessarily shortened*, because, as I shall presently explain to you, its inverted position does not depend upon the whole foot, but only upon its anterior two-thirds, being turned inwards. The foot is, therefore, bent laterally upon itself, the angle of flexion corresponding to the great transverse tarsal joint in front of the astragalus and os calcis; hence the shortening. 5. *The heel* appears to be very small, imperfectly developed, and misshapen; the skin of the heel does not assume its characteristic appearance as the child gets older, but remains thin and delicate; in fat children the tuberosity of the os calcis can scarcely be felt; this, we shall presently see, is owing to the nearly vertical position assumed by this bone.

Fig. 31.



Congenital Talipes Varus, severe, in a very fat infant, aged 5 months.

6. *The internal malleolus*, as Scarpa correctly observes (a), "is very slightly, or not at all prominent; the external, on the contrary, projects considerably, and is apparently situated more downwards and backwards than usual." The diminished prominence of the inner malleolus I shall presently explain to depend upon the altered position of the navicular bone.

7. *The surface on the dorsal aspect of the foot* is more or less irregular, partly from the prominence of some of the tarsal bones, especially the head of the astragalus and anterior extremity of the os calcis; and partly from the very constant existence of an irregularly triangular depression corresponding to the oblique neck of the astragalus, the outer surface of which looks almost directly forwards, and can easily be felt.

The foot, in a case such as that I have just described, cannot be restored by manipulation to its natural form and position; but its anterior portion can generally be drawn a little, sometimes nearly half way towards the median line of the leg; the os calcis, however, is generally held rigidly in its elevated position. When the anterior part of the foot is partially drawn towards the median line of the leg, the skin on the convexity appears to be considerably in excess—it may easily be pinched up—and you will probably remember the case which I mentioned to you in the first lecture, in which the whole of this skin was dissected off the foot by a Surgeon in the hope of retaining the everted position, and thus *curing* the deformity.

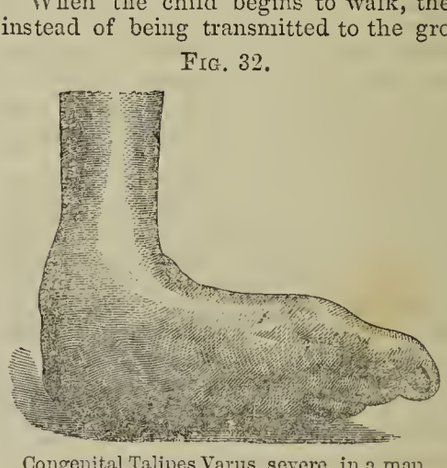
The external characters above described are variously modified according to the severity of the case. *In very slight cases* all the characters above enumerated are proportionably less marked, and the foot can, in some instances, be twisted quite into its natural form and position; the heel also descending. *In very severe cases*, the inner edge of the foot, instead of forming a right-angle with the leg, may be drawn upwards so as to form an acute angle with it, or even to be in contact with the inner side of the leg; and the great toe is often widely separated from the second toe, from the continued action and adapted shortening of the extensor pollicis muscle, and probably of the abductor pollicis. I have occasionally observed this abduction of the great toe in comparatively slight cases. In severe cases, also, the foot is sometimes shortened to an increased extent by a rigid contraction and shortening of the plantar fascia, so as to produce a transverse depression in the sole of the foot. There are some comparatively rare cases in which this rigid contraction of the plantar fascia is the predominant condition, the inversion of the foot being slight, and the os calcis not materially elevated.

I may remark generally, however, that, for practical purposes in reference to the prognosis and result of treatment, we judge of the severity of a case, not so much by the external form of the foot, as to whether it forms more or less than a right angle with the leg; but by the amount of resistance offered to the restoration of the foot by manipulation to its natural shape and position. This resistance, or rigidity, as we generally express it, arises from contraction, and adapted shortening of both muscles and ligaments, conditions which are found to exist in every degree at the time of birth, but which do not constantly bear a definite relation to the external deviations in form. Some apparently severe cases, in the infant, are very flexible, while others, of the same external appearance, are extremely rigid and unyielding. This rigidity, however, increases with the advance of age; and, in the adult, bears a pretty constant relation, in congenital cases, to the external form of the foot.

External characters acquired or superadded.—After the foot has been used in sustaining the weight of the body and in progression, the external characters, as above described, become materially modified, and the general appearances, in a severe adult case are well exhibited in Figs. 32 and 33.

When the child begins to walk, the weight of the body, instead of being transmitted to the ground through the arch of the foot, so perfectly and beautifully adapted by nature to receive it, is thrown upon its outer border, or fifth metatarsal bone, which gradually yields in a direction backwards, so that the individual at last walks completely on the dorsum of the foot. Two modifications in external form result from this:—1. The aspect of the sole looks upwards and backwards as seen in Fig. 33; and the dorsum is directly downwards and forwards, as seen in Fig. 32. 2. A deep longitudinal furrow, or depression, is gradually formed in the sole of the foot, well marked in Fig. 33, in consequence of the narrowing of the transverse arch of the foot, produced by a folding backwards of the fourth and fifth metatarsal bones, and an approximation of the latter to the metatarsal bone of the great toe. This obviously depends upon the distribution of the superincumbent weight, and increases with age, the foot becoming greatly diminished in breadth.

Fig. 32.



Congenital Talipes Varus, severe, in a man, aged 26; anterior aspect.

(a) On "Congenital Club-Foot." Translated by J. H. Wishart. Edinburgh, 1818, page 6. Original 1st Edition, Pavia, 1803.

Shortening of the foot gradually increases, or, it would be more correct to say, becomes more conspicuous during the growth of the foot in its deformed position. This depends upon two causes—

Fig. 33.

Posterior aspect of same foot as Fig. 32.

1st. The bending of the foot upon itself in the direction of its length—the peculiarity of this movement by which the sole of the foot is brought into opposite relation with the lateral aspect of the os calcis I shall presently describe to you;—and, 2nd, it depends upon the adapted atrophy, and shortening of all the muscles, fasciæ, and ligaments in the sole of the foot, by which the deformed position of the foot is rendered more rigid and confirmed during its growth. One effect of this peculiar flexion of the anterior portion of the foot, is the production of a deep transverse, or obliquely transverse, depression across the sole at its posterior part, or about the junction of the middle with the posterior third of the foot. This is well exhibited in Fig. 33. *The longitudinal depression* previously described terminates posteriorly in this transverse depression, and the degree in which they are both developed corresponds to the severity of the case, and also to its congenital origin; they are generally absent, or but slightly marked in non-congenital cases, and are, therefore, useful diagnostic indications. *The heel* remains of small size, and to external appearance imperfectly developed in adult cases of congenital varus; the skin retains its fine, delicate appearance, and thin texture, without requiring any of the ordinary characters of the skin of the heel when subjected to use; and the thick cushion of fat naturally existing in this situation, to diminish the effects of weight and pressure, is but imperfectly formed.

Formation of dorsal cushion.—I have previously stated that in cases of congenital varus, after the foot has been used in progression, and its deformity consequently increased, the weight of the body has to be sustained by the dorsal surface of the foot, where the bones are only covered by delicate skin and a little cellular tissue, and, therefore, but ill adapted to resist the influence of weight and pressure. However, here we see a compensative effort of nature set up, and a thickened mass of condensed cellular tissue forms in this situation; the skin also becomes considerably thickened, and covered by an abundant horny cuticle, which together form a pad or cushion on the dorsum of the foot, and protect the bones, and diminish the inconveniences of weight and pressure. A large bursa is also generally formed between this cushion and the surface of the tarsal bones, and by the accumulation of fluid in its cavity sometimes enlarges the cushion to a very inconvenient size. This compensative provision is very inadequate to the requirements of the part, and, moreover, is attended with peculiar disadvantages, such as cutaneous and bursal inflammation, liable to be followed by a most intractable ulceration, to be presently alluded to.

Atrophy of the Leg.—In addition to the external characters of the foot, essential and acquired, above described, I may here mention that, in cases of congenital varus, although at the time of birth the leg is well-developed, and the muscles, in most cases, healthy, and nearly, if not quite, of their natural size; yet, as age advances, the growth of the limb below the knee is defective in every respect, so that in the adult, or even in youth, the leg below the knee presents the appearance of an atrophied or dwindled extremity. In the patient from whose foot Figs. 32 and 33 were taken, the leg at the most prominent part of the calf—which, I may observe, is always much higher than in the normal condition, and in this leg corresponded to the tuberosity of the tibia—measured in circumference only 11¼ inches, while the opposite leg measured 14 inches in circumference at the most prominent part of the calf, which was 3 inches below the tuberosity of the tibia. The thighs were very nearly of the same size, but in some cases a marked difference is observable in this part also. The length of the club-footed leg in the adult is usually somewhat diminished, in consequence of its defective growth below the knee; and shortening, to the extent of half an inch or an inch, is frequently seen. In the case above adverted to, the leg was half an inch shorter than the opposite member.

Special effects and inconveniences.—In severe cases of congenital talipes varus a certain amount of lameness necessarily results from the absence of any motion at the ankle-joint, from the altered form of the foot which affords a very insecure base of support, and also from the amount of shortening usually present in the adult. The peculiar mode of walking when both feet are affected, arising from the necessity of lifting one foot over the other, you are, doubtless, familiar with, as sufficiently numerous examples of this frightful deformity are still frequently to be seen in the streets of this metropolis. Let us hope, however, that these illustrations will rapidly diminish, as a knowledge of Orthopædic Surgery becomes diffused through the country. It is worthy of remark, that the lameness is diminished, in very severe adult cases, by the retroverted position of the foot, and that it is somewhat increased after the cure of the deformity, unless free motion be obtained at the ankle-joint, which cannot always be accomplished. In the case figured above, the motion at the ankle-joint is still very limited, and the lameness is somewhat increased in consequence of the length of the foot in front of the leg. At younger ages, free motion at the ankle-joint is obtained to the natural extent, and the lameness completely removed.

The inconveniences arising from club-foot are frequently insignificant at the early periods of life. Boys generally walk pretty well with their club-feet, and are often as active, and can even walk as far, as other boys; but, from the anticipation of inconveniences, they are among the poor usually brought up to sedentary occupations, such as tailors, shoemakers, etc. Sometimes we see men thus deformed who have followed agricultural pursuits for many years without inconvenience; but generally as age advances very serious inconveniences arise, more especially if the individual should become stout, or the general health fail. The feet become tender after very little walking; all sorts of boots are tried, hollowed internally, so as to diffuse pressure and relieve the tender feet, and constructed externally so as to widen the base of support.

Inflammation of the bursa and cushion of condensed cellular tissue, which I have described to you as generally existing upon the dorsum of the foot, and upon which the individual treads, is very apt to occur; and frequently terminates in a very tedious and destructive process of ulceration from the defective nutrition evidenced in these legs, as well as the peculiarity of the structure affected. These ulcers are extremely difficult to heal, and frequently continue for years, resisting every method of treatment. Crutches are then resorted to, and the patient has not only a useless, but a very burdensome and troublesome leg.

Amputation, under these circumstances, has frequently been performed. The beautiful specimen of congenital club-foot, dissected so as to exhibit the relative position of all the tendons etc., (see Figs. 36, 37, and 38,) which I have now the opportunity of showing you, through the kindness of Mr. Bishop, whose property it is, was amputated about ten or twelve years ago, by a Surgeon now practising in the neighbourhood of London, in consequence of the intractable ulceration which existed on the dorsum of the foot, and which had resisted for a year or two previously all attempts to heal it. The woman, aged about 30, was a washerwoman, and, no doubt, a wooden leg would have been much more useful to her than the foot in this condition. The amputation was performed at her own request, but she unfortunately died after the operation.

Dr. Little states that, "Within the last three years (1843), amputation has been performed in this metropolis, for the removal of talipes varus, in cases in which ulceration did not exist." (b).

Moral effects of Deformity.—That the existence of any physical deformity frequently exerts a most important influence upon the moral condition and character of the afflicted individual—materially modifying the natural disposition, and altering the habits of life—cannot be matter of doubt. This is, perhaps, more conspicuous in the congenital deformities, and hence it is most frequently in connexion with talipes varus, from its great frequency, that such results have been observed. It has generally been supposed that the existence of congenital talipes varus exerted a very unfavourable influence upon the

(b) Deformities, p. 268.

susceptible mind of a late noble poet, Lord Byron, and materially affected his career. I have myself witnessed some of the worst of these moral effects, in more than one instance in which the individuals have withdrawn themselves, on account of their deformity, from the society in which by birth and education they were destined to move, and which by their accomplishments they would have adorned. The influence of deformity, however, is not always to produce such ill effects; sometimes, on the contrary, it appears to stimulate the cultivation of the highest qualities of the mind, many instances of which could be adduced in the names of distinguished philosophers, poets, statesmen, and artists, who are known to have been deformed.

(To be continued.)

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

ON GUNSHOT INJURIES OF THE HANDS,

AS DISPLAYING SOME POINTS CONNECTED WITH CONSERVATIVE SURGERY.

By JOHN WYATT, Esq., of the Coldstream Guards.

Case 1.—Private James Lovegrove, aged 23, Coldstream Guards, received a wound through the centre of the right hand, in the trenches, on September 3, which entered behind, and escaped at the junction of the carpus on the palmar aspect. The wound was occasioned by a Minié ball. He had apparently a healthy constitution. The metacarpal bones of the fore and middle finger, also of the trapezoid and os magnum were extensively fractured, and there was a great amount of hæmorrhage. On account of the man's youth, and apparently good constitution, and the fact of the extensor tendon being intact, it was decided to attempt preservation of the phalanges, by disarticulation of the comminuted metacarpal bones. The hand was subsequently placed in a splint, and water dressing applied. Four days after, profuse hæmorrhage ensued, and the integuments about the wrist and back of the hand were much swollen; pressure was applied in the course of the radial and ulnar vessels, and styptics to the part. Considerable amount of constitutional irritation followed, which was relieved by opiates. In ten days, several large sloughs being detached, a wide chasm was displayed. The man's strength was supported by a generous diet; but almost co-existent with the supervention of a warm sirocco wind, came an attack of sloughing of the wound; this was followed by diarrhœa and constitutional irritation of a severe kind; the man's strength rapidly failed, and all reparative action ceased; however, the vitality of the distal phalanges was not arrested; still, it appeared from the daily deterioration of the local and constitutional powers, that the effort at conservatism of the fingers was likely to fail, yet it was not deemed prudent, in his condition, to attempt amputation of the extremity. The sloughing continued, and was accompanied by profuse discharge of a most unhealthy kind. Irritability of the stomach, with diarrhœa, also existed; and, in thirty days from the receipt of the injury, the man died.

Case 2.—Private G. Palmer, aged 21, was admitted on 8th September, from the effects of a shell wound, which also had entered at the back of the right hand. The integuments were much lacerated and contused, and the three central metacarpal bones comminuted. The tendons of the fingers were quite destroyed. The comminuted metacarpal bones and phalanges were removed, and a flap made from the palm of the hand; the little finger and thumb only remaining. No untoward result followed, except the inconvenience of several abscesses which, during the treatment, formed among the extensor tendons, at the back of the arm, above the annular ligament. In two months after, he was sent to England.

Case 3.—Private John Hargay, aged 27, while on duty in the trenches, 27th June, 1855, received a gunshot wound through the left hand. The bullet entered at the palmar aspect, and escaped on the dorsum, producing an extensive laceration, and fracturing the semilunar, trapezoid, and os magnum, with the ends of the second and third metacarpal bones. The man's health being good, preservation was attempted, and seventeen pieces of bone were removed, also two of the extensor tendons, which had been torn from the rest. The wound was cleaned, and ligatures placed on two of the palmar arteries. Cold water dressing was applied. The wound granulated healthily, and the man was sent to England on the 7th of July, with every promise of a successful termination.

Case 4.—Private James Webb, aged 21, was admitted into Hospital on January 28, 1855, on account of a wound from a Minié ball, which entered at the palmar surface, and escaped between the second and third metacarpal bones, on the dorsum of the hand.

The metacarpal bone of the middle finger was comminuted throughout its entire length. As the young man had only recently arrived from England, and had scarcely become accustomed to the wretched camp-life and diet, we determined to attempt preservation of the phalanges of the finger. At that period the sick were much crowded in the Hospital-tents, and scorbutic diarrhœa was prevalent. It was observed that, after the fragments of the metacarpal bone had been removed, there was considerable oozing from the surface, which continued for an hour after the hand was dressed. The following day, on removing the wet lint, the oozing again returned, and this continued upon each subsequent occasion. I could not discover, from inquiries, that any constitutional hæmorrhagic diathesis existed in him. I examined his gums, which were highly tumid and vascular. Lime-juice and Dover's powder were given to him twice a-day, which, combined with a generous diet, effected a very beneficial change in his condition. Subsequently he had a severe attack of diarrhœa. The cold weather was now most severe, and the means of rendering the Hospital-marquees adapted for sick and wounded were very limited. This man, consequently, became frostbitten in both feet during one severe night. Discoloration ensued as high as the instep, and, at this time, the phalanx of the finger, which we were attempting to preserve, became sphacelated, and was detached. The man's health now began to give way, and stimulants, such as could be obtained, were administered to him. He suffered also from a second attack of diarrhœa, which much reduced him. The line of demarcation was well established in the feet, but, on account of his debilitated condition, any operative interference was out of the question. Nature set up the disjunctive ulceration, which, on account of the amount of structures to be detached, was slowly effected. Chloride of lime lotion and charcoal poultices were applied to the parts. In ten days after, Nature's efforts were assisted by detaching one-half of each foot, through the metatarsal joints; and subsequently, on dividing the tendines Achillis, the feet separated at the ankle-joints. The man sank two days after, although at the period it was considered that sufficient constitutional power existed to enable him to rally. It may be considered that this is rather a mixed case, but still it demonstrates two important principles of Surgery; one of which has been already discussed here (respecting the treatment of frost-bitten parts) as a separate question; and the other, that it is most important to diagnose any constitutional taint which may exist, and especially one which may so much interfere with the ultimate issue of a case where all the reparative efforts of Nature are required to sustain a local injury.

These complete the series of cases which I attend to adduce, and I think they will each be found to elucidate principles of considerable importance, and which obtain generally in such-like injuries. It might have been expected that the extensive field of practical experience which I have enjoyed since the commencement of the campaign, would have enabled me to contribute a record of injuries of more important structures. Why, then, have I selected wounds of the hand? Simply because, 1st. I believe that to the Military Surgeon, as also to the patient, they are second to none in the anxious consideration which always should attend on their infliction.

2. It is that part of the body, more perhaps than any other which, when afflicted with traumatic injury, will display the often miraculous reparative resources of Nature, and thus permit us to derive instruction which we may hereafter apply to injuries of more vital and concealed parts.

3. We observe, after any curtailment has occurred, in the smallest or greatest degree, with what wonderful compensatory adaptation the remaining portions are endowed. It has been said, as an aphorism, that amputation should be the last resource and even opprobrium of Surgery, as death is of the

practice of Medicine; still, that impossibilities cannot be humanly performed, or a limb or life saved which sound experience says can no longer be preserved. In former days wounds of the hands and fingers were much dreaded, on account of the liability to tetanus; and for that and other reasons, I have no doubt that primary amputations would have been performed on three of the four cases I have adduced, and with probable recovery in all. Thanks, however, to the recorded experience of the late war, the practice of Surgery is now tempered with less stern resolves; as the nature and treatment of gunshot wounds have become better understood, we place more confidence in the resources of Nature, and have become less desirous for the doubtful *éclat* of operations. It has been admitted that the type of diseases has undergone an extraordinary and almost radical change during the past five years, and that the cause for the severe treatment then employed has, consequently, long since passed away;—may we not, as practical Surgeons, incline towards a similar opinion, with reference especially to gunshot wounds? for I conceive that the spoliative and expectant systems of treatment are but the analogues of operative and conservative Surgery, the *status* of which we shall improve, in proportion as we prove it to be less of an art than a science. I believe that it would be most desirable to follow up the consecutive symptoms of a given disease, uncontrolled, to its termination: by that means alone shall we be able to estimate the value and force of our particular remedies.

Certain cases must have come under the cognizance of most practical Surgeons during the war, where, after much deliberation with reference to the practice to be pursued in a very severe injury, the issue has been considered sufficiently doubtful to give the patient the chance of preserving his mutilated limb; and, almost contrary to all expectation, the result has proved successful. Such a case occurred to me last year. A man was wounded in the trenches by a fragment of shell, which carried away the whole of the sural vessels of one leg, fracturing at the same time the fibula, in two places. He had apparently a good constitution, and, after a most anxious reflection, I decided to give the man the chance of having even a distorted limb; although it was by several Surgeons considered almost too great a risk. The man was himself much opposed to any operation. After great care and attention, he was in eleven weeks considered sufficiently recovered to undertake the voyage to England, with rather an awkward leg, it is true; but still it was one which he would have been very loth to exchange for the best substance in cork or wood that could ever be produced. Monsieur Bandeux, the distinguished Inspector-General of the French army, who has lately made a tour of inspection through the allied camps, informed me, that it is extraordinary what an amount of preservation of limbs is now attempted, by resections, at their Military Hospitals, after injuries which formerly would not have been considered amenable to such treatment, and with more than great success; for it appears that, out of twenty-nine cases of resection performed by himself, only three were fatal, which is a result, I think, sufficiently satisfactory; but they were performed in large Military Hospitals in France, and not in field Hospitals, in position even, much less in bivouac after an action.

The more remote the seat of injury from the larger articulations, with the greater freedom, I conceive, may conservation be attempted; but, when preservation of limbs after injuries near the larger joints is attempted, the most mature deliberation is necessary; indeed, I cannot conceive a more important duty to devolve upon the Military Surgeon, or one requiring more experience of Nature's resources, as regards future prognosis; neither can I conceive anything so distressing as to be obliged to remove a limb which has proved useless after a *so called* cure of conservative Surgery; and this contingency must be always remembered in Military practice. I very much doubt if we are not always justified in attempting to preserve a portion of the hand, even after the most severe injuries; and in *Case* No. 1, detailed, I feel that we were equally warranted in attempting to preserve the phalanges; and had the constitution of the man been more vigorous, there is every reason, in my mind, to believe that the injury might have been repaired, as in *Case* No. 3, where even a greater damage was primarily inflicted. I think that, especially where the tendons are intact, notwithstanding that the metacarpal bones may be much comminuted, we should endeavour to preserve the phalanges, provided the patient's constitution is good. I must, however, confess, that I believe unless the state of the wounded after an engagement can be such as to render them free from the discomforts and dangers attending frequent locomotion, that excisions of the joints of the lower extremity should rarely be performed; and this opinion I have arrived at from very practical experience during this war. What, for instance, but an untoward result could be anticipated for those wounded soldiers who, after the battles of Alma and Inkermann, were removed to Scutari, there to be placed in a crowded Hospital, after a tedious voyage of several days? If it be admitted that the after treatment of excision of joints requires especial care and attention, then it is manifest, that where such cannot be obtained, it will not be desirable to venture too much in that direction. Hæmorrhage after gunshot injuries in the hand is often most difficult to control; indeed, I know of one case where amputation was advised, after deligation of the artery had first been attempted with no success: in this case pressure at the seat of injury was impossible, on account of the inflammation and sloughing which had followed; every kind of styptic was also tried in vain: and the lad had lost a large quantity of blood: pressure was then carefully applied over the course of the radial and ulnar arteries, and, as ice could not be obtained, a syphon was constructed, by which cold water was allowed to drop perpetually on to the wound: this was continued for twelve hours, when all hæmorrhage ceased, and subsequently a good recovery was made. It is also worthy of note, that during this war hardly any cases of tetanus following wounds have been reported; and as such a complication was at one time supposed to be peculiarly liable to follow injuries of the hand in Military practice, how can we account for the immunity during this campaign, except from the improved system of treatment employed? Of all gunshot injuries in the neighbourhood of the hands, I think the greatest danger to the subsequent recovery of the member arises from those cases in which a ball has penetrated the carpal bones alone, on account of the extensive irritation which ensues.

ON ANÆMIC PROTRUSION OF THE EYE-BALL.

By ROBERT TAYLOR, Esq.
Surgeon to the Central London Ophthalmic Hospital.

The following cases are recorded as illustrative of a disease which has attracted attention only within a comparatively recent period, and of which the true pathological explanation is as yet a desideratum. In relating them I shall endeavour to avoid all extraneous matter, noticing only those points in each which appear to be characteristic.

Case 1.—Mrs. T., aged 26, has been married eight years, but has never been pregnant. Her menstrual periods have been regular; but the discharge has always been in excess, and she has had several attacks of menorrhagia, losing much blood on each occasion. She has long been subject to leucorrhœa, which, six months ago, became very profuse, and shortly after this she was attacked with palpitation of the heart. About the same time she observed a swelling in her throat, and her eyes became so prominent as to attract the attention of her friends. These symptoms, which appeared as nearly as possible simultaneously, have gone on increasing slowly but steadily. Leeches and tincture of iodine have been applied to the throat, but without producing any diminution in the swelling.

Present State.—She is very pale and feeble. She suffers from spinal tenderness, intercostal neuralgia, ringing in the ears, œdema of the ancles, and other symptoms of anæmia. She is exceedingly nervous, starting and trembling violently when suddenly addressed; she has occasional hysteric fits. The pulsations of the heart averaged 134 per minute, and are very distressing; the carotid arteries also throb violently. The thyroid gland is enlarged to about three times its natural size, its surface being smooth and regular; several of its enlarged arteries can be felt pulsating near the surface. The eyeballs protrude so as to expose a broad rim of the sclerotica around the margin of the cornea, giving her a wild and staring appearance, which attracts attention and exposes her to annoyance in the streets. The amount of protrusion varies, within certain limits, with the degree of nervous excitement,

being always much greater when she is agitated. The eyeballs can be readily replaced by gentle pressure, but they speedily resume their prominence when the pressure is remitted. There is some congestion of the conjunctival vessels, and slight increase of the Meibomian and mucous secretions; in other respects the eyes have a healthy appearance; their movements are perfect in every direction, and the sight is unimpaired. The eyelids, which are of a dusky colour, cannot be closed without a slight muscular effort.

The treatment, which extended over a period of three months, consisted in the administration of iron in several forms; astringent injections, per vaginam, to check the leucorrhœa; and belladonna plasters over the region of the heart, which afforded great relief by diminishing the violence of the palpitation. As her general health improved, the heart's action approached more and more to the natural standard, and the prominence of the eyeballs was reduced, until they ultimately resumed their proper position; but no change took place in the size of the thyroid gland, so long as she remained under observation. She subsequently had a slight relapse, brought on apparently by mental agitation, but a similar plan of treatment again proved successful in a few weeks.

Case 2.—Mrs. C., aged 40, has had eight children, the last two of whom were twins, and were born four years ago. One of these she suckled for twelve, and the other for sixteen, months; during which time, as on previous similar occasions, she menstruated regularly and abundantly. When she had suckled both infants for a year, she first observed an enlargement of her throat, and the swelling increased slowly for about two years, since which it has remained stationary. Some months after she first observed this enlargement her eyes began to protrude, so as to attract the attention of her friends. She then applied to a Surgeon, who told her that she had disease of the heart—a fact which she then learned for the first time, as she had never felt the slightest uneasiness in that region; how long the palpitation may have existed it is impossible to say, as even now, although it is very violent, she is quite unconscious of it, unless when much excited.

Present State.—Pale, anæmic, and highly excitable. The eyeballs protrude so as to expose a narrow rim of sclerotica around the cornea. They can be readily replaced by gentle pressure; their movements are perfect in every direction, and the vision is unimpaired. The protrusion varies with the amount of nervous excitement. The conjunctivæ are slightly injected, but in other respects the eyes appear to be perfectly healthy. The heart beats violently and rapidly, the pulsations being 142 per minute; but it is probable that this exceeds the usual standard, and is partly due to excitement, consequent on a stethoscopic examination. The carotid arteries pulsate strongly and visibly. The thyroid gland is enlarged, chiefly in a lateral direction, to more than thrice its natural size; its surface is smooth and regular.

The treatment was conducted upon the same general plan as in the preceding case, and extended, with one or two interruptions, over a period of five months. The general health was restored, and the eyes resumed their natural position; but there was not any diminution in the size of the goitre.

Case 3.—Mrs. R., aged 26, has been married nine years, but has never been pregnant. For many years she has been subject to profuse leucorrhœa, and her health has been still further impaired by insufficient nourishment, and by close application to needlework. Two years ago, she began to suffer from palpitation of the heart, and soon after this her throat became enlarged, and her eyeballs unnaturally prominent.

Present State.—Pale, thin, and excessively nervous and excitable, trembling almost convulsively when suddenly spoken to, or even when looked at. The eyes protrude to such an extent that she cannot, by any effort, close the eyelids, and she complains much of the discomfort caused by their remaining half-open during sleep. The eyeballs can be replaced by gentle pressure; their movements are perfect, and the sight unimpaired. The protrusion varies considerably, with the amount of nervous excitement. The conjunctivæ are somewhat congested; in other respects the eyes appear perfectly healthy. The thyroid gland is enlarged to about four times its natural size, and numerous dilated arteries can be felt near its surface, which is smooth and regular. The heart, under the agitation of being examined, beats violently, the pulsations being 144 per minute. The carotid arteries also throb visibly.

This patient remained under treatment for two months, the remedies employed being iron, astringent injections per vaginam, and belladonna plasters over the region of the heart. She had improved considerably in health, and her eyes had receded so far that she could close the eyelids without any effort, when she left town, and remained without Medical treatment of any kind for some months. A short time since, she again made her appearance at the Hospital, in nearly the same condition as at her first visit. The treatment has been resumed, and she is again progressing favourably.

In each of the above cases, a careful stethoscopic examination of the chest was made by my friend Dr. Hare, who has kindly permitted me to condense and make use of his report.

In the first, there was some hypertrophy, with a little dilatation of the heart, but no valvular disease. In the second, the condition of the heart was almost exactly similar, but there was a doubtful murmur with the first sound, the exact nature of which could not be clearly ascertained, on account of the excited state of the circulation at the time. In the third, there were slight hypertrophy and dilatation, with a distinct, though not loud systolic murmur at the base, "which," Dr. Hare says, "*may* be anæmic."

Case 4.—I have reserved this case for the last, although it is the first entered in my case-book, as I am desirous of calling attention to a very striking peculiarity which it presented, in the sudden appearance of the exophthalmia.

Letitia M., aged 21, was subject to fits, probably epileptic, in childhood. These gradually ceased as she attained the period of puberty, but she remained excessively nervous and hysterical, and has long suffered from spinal tenderness, intercostal neuralgia, coldness of the extremities, and other symptoms of nervous debility. Three years ago, after a fall by which she severely bruised her right side, she began to suffer from palpitation of the heart; this has continued ever since, being constant and annoying, interrupting her sleep, and greatly aggravated by the slightest agitation or exertion. One year after this, the thyroid gland began to enlarge, and gradually increased until it attained its present volume, about four times that of the healthy gland. She was for some time under Hospital treatment for this, as well as for the palpitation, but without receiving any benefit. About a week before I first saw her, she felt an unusual sensation in the brows one morning on awaking, and on looking in the mirror, she found that her eyes, which had been perfectly natural in appearance when she retired to rest, were protruded to such an extent that she could scarcely close the eyelids.

Present State.— The eyeballs protrude, as above described; their movements are perfect; the sight is not impaired, and they appear to be perfectly healthy. They can be readily replaced by gentle pressure, but resume their abnormal position when the hand is removed. She says that the prominence varies very much, and that at times it is scarcely perceptible. The action of the heart is very violent; the pulsations, under the excitement of being examined, are 140 per minute. There is a slight blowing murmur with the first sound; on percussion, the dullness over the heart is rather more extensive than natural. The carotid arteries throb violently. The enlarged thyroid gland is smooth and regular, and several of its dilated arteries can be felt near the surface.

Under treatment of a similar character to that adopted in the preceding cases, and extending over rather more than two months, the eyes had very nearly resumed their normal position, and the general health was very much improved, but there was no diminution in the size of the thyroid gland. She then left town, and I have not had an opportunity of seeing her since.

In addition to the above, I have collected from the various Medical Journals twenty-one cases, which have been given sufficiently in detail to render them free from doubt; others are alluded to as having occurred, but without any particulars being given. Of the twenty-five reported cases, twenty occurred in females, and four in males; in one the sex is not mentioned, but, from the context, the patient appears to have been a male. Three deaths have occurred, in each instance in males. In two there was a post-mortem examination. In the first, related by Sir Henry Marsh, the patient had long suffered from extensive organic disease; there was considerable dilatation, with hypertrophy, chiefly of the left side of the heart, and some amount of valvular disease, chiefly of the right; the right internal jugular vein was very much dilated; the patient died of general anasarca, followed by erysipelas and

gangrene. In the second, detailed by Dr. Begbie, the patient suffered from organic disease of the heart, enlargement of the liver, general dropsy, and jaundice; of which complication of disorders he died. The heart was found to be large, soft, and flaccid; all the cavities, but especially the ventricles, were dilated; the valves were larger than usual, having accommodated themselves to the increased size of the cavities; but they were otherwise normal. The aorta, in comparison with the pulmonary artery, was small. The internal jugular veins were much dilated. The blood in the heart and great vessels was very fluid. In none of the other cases has stethoscopic examination detected any very serious amount of cardiac disease; in some there has been slight dilatation with thinning of the walls, but without valvular disease; in others there does not appear to have been any structural alteration.

With one exception, the enlargement of the thyroid gland has appeared to be due to simple hypertrophy of its normal structures, with a great increase in the activity of its circulation and size of its blood-vessels. In the exceptional case recorded by Mr. MacDonnell, the goitre was of the cystic variety, and had attained a considerable size.

In no instance has there been any disease of the eyeball. It is true that in a few cases it is described as having been enlarged; but this is evidently a mistake, as the vision was unimpaired. The eyeball is not subject to enlargement, except as a consequence of long-continued inflammatory disease, destructive of vision, by which the tough, unyielding tissue of the sclerotica is softened, and gives way to the pressure from within, bulging, generally, in a very irregular manner. The protrusion must be due to some other cause, the nature of which, in connexion with the general pathology of the disease, we have now to consider.

It must be borne in mind that the protrusion may, as in *Case* 4, come on suddenly; that it varies in degree according as the patient is agitated or tranquil; and that the eyeballs can be replaced in their natural position by gentle pressure. It cannot, therefore, be due to any solid tumour, or fluid effusion in the orbit; nor can it be ascribed to paralysis of the recti muscles, for the eye can be moved in every direction as readily as in health. The cause to which it is most commonly ascribed is, congestion of the deep-seated veins of the orbit; and this seems to afford a more probable explanation than any other, both from its being quite reconcileable with the variable amount of exophthalmia, and from the well-known effect of impeded return of blood from the head in causing prominence of the eyes, as witnessed, for example, in strangulation. But how are we to account for this congestion? and how are we to explain its association with the peculiar condition of the heart and the thyroid gland? for the cases already on record are too numerous to permit us to suppose that these are merely coincident symptoms; together they evidently constitute a distinct disease, and there must be some common cause capable of producing each, and of rendering them mutually dependent upon each other.

It has appeared to me, that a key to the true solution of this question has been given by Dr. Marshall Hall, in his valuable writings on the subject of convulsive and paroxysmal diseases. He has shown that, in such diseases, there is a tendency to spasm of the muscles of the neck; and that the seizures are the direct result of impeded return of blood from the head, the deep-seated veins being compressed by the irregular muscular action. Now, the subjects of anæmic protrusion of the eye-ball are eminently of the class to which Dr. Hall's remarks apply. Some of them are subject to fits, hysterical or epileptic; in all the nervous system is in a state of extreme excitability, so that the slightest agitation produces starting and trembling, sometimes so violent as almost to resemble convulsion in a minor degree. Is it not probable that, as in the confirmed epileptics, there may, in these cases also, be an impediment to the free return of blood from the head, only to a less amount, and, perhaps, more continuously? In the only two post-mortem examinations that have been made, the internal jugular veins were found to be greatly dilated, as though they had long been subject to distension by some obstructing cause towards the lower part of their course; and, as in neither case was there any solid growth by which they could have been compressed, it does not seem unreasonable to suppose that the obstacle was due to muscular spasm. The same explanation would account for the enlargement of the thyroid gland, which, as has been already stated, is due to imple hypertrophy of its normal structures, and would be a probable result of long-continued hyperæmia. The palpitation of the heart does not require any explanation here, as it is common to all cases of anæmia, whether accompanied or not with protrusion of the eyes.

The different stages of the disease, then, may be stated as follow:—First. Some debilitating disease, or exhausting discharge, producing—secondly, anæmia; thirdly, that peculiar state of the nervous system, in which there is a tendency to spasm of the muscles of the neck; fourthly, as the result of such spasm, and consequent impeded return of blood from the head, hyperæmia and hypertrophy of the thyroid gland, and dilatation of the veins of the orbit, causing exophthalmia.

This explanation I offer merely suggestively. I am well aware that it is open to many objections; but none have as yet occurred to me which appear insuperable. It is supported by the histories of all the carefully-described cases, and by the necroscopical appearances in the only two post-mortem examinations that have been made; and it accounts for the association of three symptoms, the connexion of which it seems otherwise impossible to divine. If it fail to stand the test of rigid investigation, it may still have the good effect of attracting the attention of those who are able to expose its errors, and to substitute a perfect one in its place.

It is unnecessary to dwell at any length upon the treatment, which is essentially that of anæmia. A few cases have occurred in which patients have been attacked who were already the victims of extensive disease of the thoracic and abdominal viscera, and in such the treatment must be merged in that of the more serious disorder. But in the great majority of instances, any structural changes that have been detected have been comparatively slight, and amenable to remedial measures. The patient should, therefore, be encouraged to look forward with confidence to a successful issue. In the words of Dr. Begbie, whose valuable paper contains the latest and most complete *résumé* of the subject, "it is of great consequence to impress those suffering from this affection with the belief of its curable nature, and to urge upon them the persistent employment of the means of restoring the red particles of the impoverished blood, and improving the general health." The *starting point* of the disease must first be ascertained, and in females this is almost always some form of exhausting discharge in connexion with the uterine organs, which must be checked by appropriate remedies. The various preparations of iron, nutritious and unstimulating diet, pure air, and absence of excitement; the treatment, in short, which is found successful in cases of anæmia not thus complicated, are the further means to be adopted. No local applications are necessary, either to the eyes or to the thyroid gland; but as some patients are dissatisfied without them, they may be directed to use the eye-douche, or to bathe the eyes with cold water from time to time. The only local application which I have found really serviceable, has been a belladonna plaster over the region of the heart, which, in some instances, has had a marked effect in diminishing the violence of the palpitation. The progress towards recovery is generally slow, and the treatment may require to be prolonged over many months; but if judiciously selected and carefully persevered in, we may look forward with confidence to the restoration of the general health, and the complete disappearance of the deformity caused by the unnatural prominence of the eyes.

In many of the recorded cases, the swelling of the thyroid gland has also subsided, but this has by no means uniformly followed; it has occurred, so far as I am able to judge, more frequently in private patients, who are more under control, and have the means of carrying out more fully the prescribed medicinal and dietetic regulations, than in the less regular and less favourably situated class to which the out-patients of hospitals belong. But as the enlargement is rarely to any extent, and as a certain amount of diminution invariably takes place, the persistence of a slight and scarcely perceptible fullness is not a matter of any importance.

Those who wish for further information on the subject may consult Sir H. Marsh, *Dublin Journal of Medical Science*, Vol. XX., p. 471; Graves "Clinical Medicine," Vol. II., p. 193; MacDonnell, *Dublin Journal of Medical Science*, Vol. XXVII., p. 200; Cooper, *Lancet*, May 1849, p. 551; Begbie, *Monthly Journal of Medical Science*, Vol. IX., p. 495, and *Edinburgh Medical and Surgical Journal*, Vol. LXXXII., Case-book, p. 33; Syme, *Monthly Journal of Medical Science*, Vol. X., p. 488.

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THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION

BETWEEN

BRONZED SKIN AND DISEASED SUPRA-RENAL CAPSULES.

(Continued from page 237.)

FURTHER PARTICULARS OF CASE NO. 27.

If the power of making a correct prognosis may be taken as the test of knowledge, the following case appears to possess a peculiar value. It will be in the recollection of some of our readers, that in one of the cases which we ventured to include in a recent series as an example of bronzing of the skin dependent on disease of the supra-renal capsules, the patient was still living. The opinion as to its real nature was, therefore, grounded solely on the belief that sufficient evidence existed in proof of the connexion of disease of the organs alluded to and change in colour of the skin. Since then the case has ended fatally, and the autopsy has proved the correctness of the opinion arrived at, thus furnishing an almost conclusive fact in support of the views advanced by Dr. Addison.

The case referred to is No. 27 in the Tabular Report. The patient, a lady residing in Norfolk, was under the care of Drs. Ranking and Vincent. The following statement of her symptoms was published by the former in the *Medical Times and Gazette*, for December 22, 1855, four months before her death.

"Mrs. W., aged 58, a lady of large frame and masculine appearance, consulted me on the 28th of August last. She has been habitually a large eater, especially of highly-seasoned dishes and butter, the latter in extravagant quantities. I was struck with her altered appearance, having known her as a woman of, at a rough guess, fifteen-stone weight.

"She was now much shrunk, but still a large person; and complained mainly of great and increasing loss of strength, with sinking at the pit of the stomach, nausea, and complete loss of appetite. She was also greatly annoyed at a gradual change of colour which the exposed surface of the skin had undergone. The face was dark brown, as dark, in fact, as that of a Japanese; and might be called bronzed, without any great stretch of the imagination. The hands were also discoloured, especially at the knuckles. I have not seen the skin of the back or body, and therefore cannot speak as to the extension of the change to those parts, but I have observed that the arms are discoloured, though to a much less degree. Her heart's action is very feeble, and suggests the idea of fatty degeneration; but, excluding this, I could not satisfactorily account for her extreme debility, and her resistance to all restorative measures, medicinal and dietetic. The secretions of the liver and intestines are perfectly natural, and the urine is healthy.

"This lady has improved somewhat under citrate of iron and quinine, and nitro-hydrochloric acid, but as yet the progress has been very little; and, I confess, that until I became aware of Dr. Addison's researches, I could not devise an explanation of the case at all to my satisfaction. Whether a morbid condition of the supra-renal capsules is the true solution, I trust may long remain uncertain, but I shall not fail to keep the idea in view, should the case, as I fear it will do, ultimately prove fatal."

The following narrative of the same case, with its further progress and conclusion, has been sent by Dr. Vincent to Dr. Addison, and by the courtesy of the latter has been furnished to us for publication:—

"Mrs. ——, aged 59, a married lady in affluent circumstances, the mother of five children, very tall, and has been very stout; has enjoyed general good health since her marriage, but previously had been lowered by depletion until some years since she was told by her Physician that she had a very shabby pulse, and ought not in future to be bled. Has always laboured under constipation, and regularly takes aperient medicine. Suffers also from umbilical hernia, which is reducible, and appears to contain merely omentum. Of active habits, and very fond of gardening. In diet she has indulged in meat and fats, butter, etc.; sauces to a very great degree, hardly ever eating bread or vegetables.

"In May, 1855, she first observed that the skin of her face and hands was discoloured, and was often annoyed, when making calls, by friends offering her water to wash her hands. Her appetite failed, and the stomach rejected almost everything. Emaciation, also, was very evident. Between this time and the following October, she travelled twice to Norwich (16 miles), to consult Dr. Ranking. She continued to become worse, and on October 11 I was summoned to meet Dr. Ranking, and to take regular charge of the case. At this time there was constant sickness, nothing, however, being ejected but mucus, uncoloured except by food; complete loss of appetite; tongue clean; bowels much constipated; stools, carefully and frequently examined, not at all deficient in bile; conjunctivæ quite clear, not the least yellow hue; urine, normal in quantity, the colour of pale sherry, quite clear, and not coagulable by heat or nitric acid; complains much of faintness, and is unable to sit upright; no pain in head, confusion of vision, or loss of memory; very sleepless nights, and great irritability of both body and mind; no cough, or difficulty of breathing; pulse very feeble and and compressible (80); complains of coldness in feet and hands; sounds of heart normal, impulse very feeble; abdomen quite free from tenderness; no perceptible enlargement or hardness over the regions of the liver and stomach. The discoloration of the skin is very remarkable upon the forehead, face, neck, and hands; it resembles more the colour of a copper coin that has become dirty and greasy than that of any object I can compare with it. There was also a tendency for the skin to scale off. This colour was much less marked where the dress covered the skin. Also, a peculiar sickening exhalation from the skin about the neck.

"From this time to her death, in April, 1856, in addition to the above symptoms, she suffered from neuralgia, very severe in the ear, then in face and brow, and afterwards in the right knee, shoulders, and feet, which were only very slightly œdematous. At one time she appeared to rally, the sickness left, (and was never afterwards very troublesome.) The appetite returned, and she was enabled to take carriage exercise; but the loss of flesh and strength steadily increased, while the color deepened. In March, 1856, she was visited by a Surgeon of long standing, of Norwich, who, strong in his faith that the liver must be in fault, ordered warm baths and mercurials. (It may be mentioned that the baths at 108, although they relieved the pains in the joints, never caused the least perspiration, and after the mercurials the stools were more yellow than an infant's.)

"She died greatly emaciated, April 25, having been in a state of muttering delirium for the last thirty hours of her life.

"*Treatment.*—Varied according to symptoms. At first Dr. Ranking gave mercurial alteratives and tonics; subsequently she took, at different times, effervescing draughts, bismuth, quinine, iron, hydrocyanic acid, *cod liver oil with quinine*, which alone appeared to do her good, and her faith in which was very strong until her death. Opiates in large doses were regularly required at night, without which no sleep was procurable. To relieve the local pains, belladonna, chloroform, opium, and aconitine were used with but little benefit.

"*Diagnosis.*—This for a long time completely puzzled both Dr. Ranking and myself. The state of the excretions, frequently examined, seemed to myself quite to exonerate the liver and kidneys. The frequent absence of sickness and the return of appetite, with no pain after food, appeared also to negative the idea of malignant disease of the stomach, and we were both completely at a loss to account for the discoloration of the skin; but in December, 1855, I read in the *Lancet* a review of Dr. Addison's work, upon "Disease of the Supra-Renal Capsules," and so strongly was my mind impressed with the graphic description there given, that I mentioned it to the husband, a gentleman of great intelligence, and observed to him that had Dr. Addison been writing a description of our patient it could not have been more striking. It was subsequently mentioned to Dr. Ranking, who at once recognized its accuracy.

"The post-mortem examination, owing to great pressure of professional engagements on my part, and to the limited time (per train) of Dr. Ranking who was present, was not so complete as I could wish. *The skin* was still deeply loaded with *very yellow* fat; the muscular tissue also seemed to be infiltrated with it. *Lungs*—Healthy, slightly emphysematous. *Heart*

—Small, loaded with yellow fat, and its muscular tissue so soft, that the finger most readily tore through it. *Stomach*—Some patches of redness near the cardiac portion, and the mucous membrane there rather thin; no other diseased appearances; quite empty. *Spleen*—Healthy to all appearance. *Liver*—Healthy to all appearance, normal in size. *Gall Bladder*—Moderately distended with bile. *Intestines*—Appeared generally healthy. The umbilical hernia contained only omentum. *Kidneys*—Appeared to be normal in size and appearance, and imbeded in much yellow fat. *Supra-Renal Capsules*—Much enlarged, and feeling like enlarged scrofulous glands, were about the size of chesnuts (longer), and appeared to cut like very tough leather. *Head* not examined."

One of the supra-renal bodies which was sent to Dr. Addison was by him given to Dr. Wilks for further examination, who furnished the following account:—

"The supra-renal body was rather larger than natural; and, although much altered in shape, bore a general resemblance to the original form of the organ. The first superficial observation by the naked eye, however, presented no appearance of healthy structure, but, instead, the organ was seen to be composed of a hard, yellowish-green mass, like dry putty. This was tolerably firm when taken in the hand, although friable, and easily broken down by pressure. A section showed the interior to be composed of a like substance with the exterior, and that the organ was penetrated by the same material, or was similarly degenerated throughout. This putty-like mass was not of a uniform colour or consistence, but was made up of two substances in about equal quantity; the one firm, smooth on section, and of a dull green colour; the other yellow and more friable. The partial distinction and separation of these had caused the surface of the capsule to appear nodulated. As the microscope afterwards discovered, it appeared as if the whole organ had been pervaded by a morbid product, which was fast undergoing degeneration; the different degrees of decay causing the variety of structure and colour witnessed on examination.

"*Microscopic Appearances.*—The most important fact elicited was, that not the slightest trace of original structure could be found in any part of the organ, its place being occupied by the morbid material above mentioned. This presented no great peculiarities, but resembled the product of degenerated lymph or inflammatory matters as seen in various other parts of the body. The two substances of which it was composed differed, in the one being firmer and tougher, and slightly more translucent than the other, and this by the microscope presented a few delicate fibres, among which were found cells or nuclei of all sizes and shapes. The yellow, more friable matter was composed of irregularly formed cells of the same kind, many fatty granular molecules, and a refracting amorphous material, which was partly an organic albuminous substance, and partly saline, soluble by acetic acid. It appeared thus as if the original adventitious matter had been a fibro-nucleated structure, but which had degenerated into broken-up cells, granules, fat, amorphous, albuminous matter, and crystalline forms. It presented no peculiarity over the degenerate lymph found in various other organs. This degeneration, however, seems to be one to which the supra-renal body is subject; for in this new branch of pathological inquiry several examples have already been noticed. There are, in the first place, the first three of Dr. Addison's cases, the case published by Dr. Gull in the *Medical Times and Gazette*, and the similar one of Mr. Bakewell's, brought before the Pathological Society by Mr. Hutchinson. All these instances were more or less alike, differing only in the degree of consistency and the amount of earthy or mineral degeneration which the organs had undergone. The general term, "strumous," was at first applied to this form of disease; but there is no other reason for the designation than the resemblance which the morbid material has to strumous matter. A very similar substance is found in various organs to which the latter term is still, with little reason, applied, as the yellow amorphous masses seen in lymphatic glands, and very frequently in the testes, placenta, and other structures. In the testes such masses of degenerate lymph are constantly found in the midst of carcinomatous disease, which, under other circumstances, would be called strumous.

"In the cases of supra-renal disease of which we have been speaking there has been no evidence of constitutional tubercular affection; and thus it would appear that these bodies are subject to their own peculiar malady; but whether this be allied to an ordinary inflammatory condition, accompanied by an effusion of lymph and subsequent degeneration or other morbid change, requires still further investigation. The fact of the two organs being simultaneously affected, while all other parts of the body are healthy, is an evidence of their importance in the system."

Remarks.—The importance of this case, as corroborative of Dr. Addison's views, has induced us to give its narrative in much detail. In Dr. Vincent's account of it, mention is made of two symptoms to which notice must be called. The first is a disagreeable odour exhaled from certain parts of the patient's body; and the second, the distressing neuralgic pains which were so prominent a feature. The odour is a symptom which was observed in two cases included in our series which occurred in the Margate Infirmary, but has not, we believe, been noticed in any others. Indications of disorder of the cerebro-spinal functions, as convulsions, alterations of temper, loss of memory, etc., have been present in most of the cases of supra-renal capsular disease, and to this class the neuralgia in the present instance belongs. Its presence tends to support the opinion that the organs referred to have some close connexion with the integrity of the nervous system.

Correction of Error respecting Case No. 21.

Case No. 21 furnished the only one in our series which appeared to be exceptional to the opinion that a well-marked condition of bronzing was always associated with diseased supra-renal capsules. In it the patient (formerly under Dr. Peacock's care at the City Hospital for Chest Diseases) had died in the country, and in the report supplied to us by the Medical man who conducted the autopsy, it was stated that the supra-renal bodies were not diseased. We have since been informed that this statement was erroneous, and that, although the autopsy was in other respects a complete one, yet, from ignorance of their supposed importance, the *organs alluded to were not examined.* The case is, therefore, incomplete, and proves nothing either way.

JONATHAN HUTCHINSON.

Medical Times & Gazette.

SATURDAY, MAY 24.

THE TRIAL OF WILLIAM PALMER.

THIS remarkable trial, which commenced on Wednesday week at the Central Criminal Court, is still proceeding while we are going to press, and will not probably be completed until the present number of our Journal is in the hands of the public; we therefore feel it incumbent on us to refrain from any observations which might lay us open to the charge of appearing to prejudge so important a case.

Under the impression that the trial would have been concluded in an early part of the present week, we had made arrangements for the appearance of a full and Special Report of the Medico-Legal testimony in our columns; but, as it now appears that the proceedings will be protracted to the end of the week, we deem it most advisable to postpone our Report until our next Number, which will contain a full and faithful account of the evidence given in this extraordinary and unparalleled case. It is our wish, without ministering to the gratification of morbid curiosity or the mere cravings of excitement, to present to our readers an enduring and scientific record of a trial which will always be quoted among the most celebrated Medico-Legal investigations of our age and country.

Dr. Taylor, to whose skill and energy great praise is undoubtedly due, has been very roughly handled in his cross-examination by Mr. Serjeant Shee, but great allowance must be made for the latter gentleman in the performance of the

very arduous duties which he has been called upon to discharge. The collateral matters relating to Dr. Taylor's letter in the pages of one of our contemporaries, and the *ad captandum* descriptions given in an illustrated periodical, have little relation to the matter at issue, and therefore demand very slight consideration. We fear, however, that from kindness of disposition and zeal for science, Dr. Taylor has unconsciously fallen into a trap laid for him by some cunning persons behind the scenes.

The difficulties attending the chemical investigations have no doubt been very great, and the skill of any Toxicologist must have been severely tried in detecting a poison in a case where the stomach had been cut from end to end, all the contents were gone, and the mucous surface was lying in contact with the outside of the intestines; as we learn was the condition of the parts when submitted to Dr. Taylor.

These difficulties were no doubt increased by the fact that the researches and conclusions of Dr. Taylor, whether positive or negative, were duly made known to the prisoner and to the Coroner, who conducted the inquest on Mr. Cook; facts to which, as they are now fully admitted and have already led to the punishment of one delinquent, we may be permitted, without impropriety, to advert.

POOR-LAW MEDICAL REFORM ASSOCIATION.

It will be seen by reference to our advertising columns that the movement so ably commenced and so energetically advocated by Mr. Griffin is about to assume a definite shape in a Meeting of Poor-Law Medical Officers of England and Wales to be held on Friday next at the Freemasons' Hall. The period chosen for the assembly is opportune, as the Metropolis will no doubt contain a great number of visitors from all parts of the country, and most of the Members of Parliament will be attending to their legislative duties in London. We are happy also to announce that Lord Shaftesbury, so well known in connexion with many other benevolent and philanthropic movements, has consented to preside upon the occasion.

We earnestly invite the members of our Profession to assemble in force upon the forthcoming occasion; and we hope that no differences of opinion upon minor points will in any way be allowed to mar the effect of this great demonstration. Under the full conviction that unanimity is absolutely essential to success, we have done our best to discourage any attempts at dividing the attention of the Profession by collateral schemes, which, although not exactly hostile to Mr. Griffin's views, might tend, however slightly, to introduce discordant opinions where harmony is pre-eminently desirable. We are happy to find that Dr. Hodgkin and Mr. Lord, and the other members of the Poor-Law Convention, to whom great praise is due for their former labours in the same cause, have not only assisted Mr. Griffin's movements to the utmost of their power, but intend, at the approaching meeting, to resign into the hands of the Poor-Law Officers the duties which they have so long and so creditably discharged, and thus leave the assembly to take whatever course may seem most advisable.

While thus announcing that the field is left open to Mr. Griffin, we hope that we shall not be deemed presumptuous in offering him some advice upon the course which he ought to pursue in the great struggle in which he is engaged. He must remember that the *vis inertiæ* which he has to overcome is exceedingly great, and that difficulties beset his path, both within and without the pale of the Profession. Let not the Poor-law Officers ask too much; else assuredly they will be disappointed; and let it not appear that the struggle is merely for selfish interests. Let it be remembered, also, that our Profession has very much cause to blame itself, for its too common practice of underbidding one another in the matter of Poor-law and other appointments. As long as men are mean enough to underbid one another, so long will Boards of Guardians be mean enough to take advantage of the competition; and the Poor-law Board and the Parliament cannot interfere to alter the price which each man places upon his own services. Above all, then, let the members of our Profession *be true to one another*.

Again, let Mr. Griffin be aware of bad advisers, and let him eschew class-interests. His objects are, we doubt not, pure and philanthropic; but he must seek the advice of old and tried friends and well-wishers of the Profession, not that of mere frothy and specious declaimers. He must exhibit the prudence of the serpent, combined with the harmlessness of the dove; and it will very much depend upon his sagacity and good management whether the present movement shall lead to the formation of a compact phalanx of Poor-law Medical Officers throughout the Kingdom, consistently defending their common and legitimate rights, or shall be confined to a puny effort of a small and powerless clique, without any common object or any common principle.

Mr. Griffin has in him the "stuff" to make a good leader, and we are sure that he will take our remarks in good part. We hope, in a future Number, to have the pleasure of recording the triumphant result of next Friday's meeting.

OPERATIONS OF THE MEDICAL OFFICERS OF HEALTH.

These gentlemen are apparently setting to work in good earnest, and are forming an Association, with Mr. Simon as their President, so as to ensure a combined plan of operations in their onslaught against dirt and disease.

We shall venture to offer, from time to time, a few suggestions on the manner in which the various branches of their duties may be most efficiently carried out. And, in the first place, we will speak of that very important duty imposed on them by the Metropolis Local Management Act, the "ascertaining the existence of diseases," and taking cognizance of the fact of the existence of contagious or epidemic diseases.

The first source of information of which Medical Officers of Health naturally avail themselves is the Mortuary Register of the District; and we hope that ere long the liberality of the authorities at the General Register Office will enable them to procure this information regularly, quickly, and without payment. But, as things stand at present, they are able, on payment of a certain sum, to ascertain the fact, place, time, and cause of any death in each District; their attention is immediately directed to any house or street in which unusual mortality prevails, and which may need purification; and they are able to analyze and classify the deaths for future statistical purposes.

But, as we have always insisted, they ought not to wait till *death* gives evidence that the mischief is done; on the contrary, they ought to be on the alert for the existence of sickness, while there is time to save the lives of the sick, and to protect them and their neighbours from every ascertainable cause of disease.

Of the various means of obtaining a prompt and regular account of prevalent sickness, there is one which has been commenced by the Medical Officers of St. George's, Hanover-square, which deserves mention. They have organized the means of knowing, from week to week, the number of children on the register of the various parochial schools, and the number of children absent from sickness; or, to speak more properly, the number of *absences*—the number of school attendances missed—through sickness; which will give a far truer account of the cases of sickness than the mere num-

ber of sick scholars. These returns are accompanied by remarks from the masters and mistresses as to the prevalence of any particular malady, and the residence of any children reported to be absent from small-pox or the like. We believe that Returns such as these will not only be a fair test of the prevalence of sickness, but will also show palpably one injurious effect of unwholesome dwellings—that is to say, the great amount which is at present deducted by illness from the scanty time in which the children of the lower orders receive anything like moral or intellectual training, before they are thrust out to get their own living. Here, too, is one benefit to be expected from sanitary improvements.

It is unnecessary to say, that the Medical gentlemen who attend the poor of each parish, and the Officers of Dispensaries and Hospitals, must be applied to for Returns periodically of the amount and nature of the maladies for which the poor seek Medical relief. By such Returns, collected and analyzed, we may hope in time for a knowledge which the Death Registers can never alone give us. We may hope to know, also, when a disease is said to be prevalent, how many persons are really affected by it; when said to be fatal, how many persons die; and we may get something like a knowledge of the relationship of epidemic diseases to each other.

THE WEEK.

A CORRESPONDENCE of considerable interest, in connexion with the administration of Medical relief at our large Hospitals, has lately appeared in the *Times*. Mr. Whitfield, the Resident Medical Officer of St. Thomas's Hospital, has published a letter in that Journal, in which he complains that the funds of the Hospitals are diverted from their original use by the necessity of affording Medical relief to a great multitude of persons who have no claims upon these establishments, either because they are able to pay for Medical advice, or because, being paupers, they ought to be provided with Medical attendance at the cost of the parishes. Mr. Whitfield strongly condemns the mistaken parsimony of the parish officers in seeking to save the funds of the ratepayers at the expence of the great Hospitals, which were not intended for the relief of permanent paupers, but for those who become temporarily unable to support themselves in consequence of illness or accident. This complaint of Mr. Whitfield is indorsed by a leading article in the *Times*, which alleges that by this transference of paupers from the Workhouses to the endowed Hospitals, the latter institutions are filled with cases requiring little scientific treatment, and which might be equally well attended to in the Workhouse Hospitals. We do not entirely concur in the truth of these remarks, for it must be recollected that the parish officers possess no power of sending the pauper patients to the endowed Hospitals, unless they pay for them, which is often done; and the Hospitals may, and do refuse to admit such cases unless they are recommended by a Governor, or are paid for by the parishes. But while we think that the authorities of the Hospitals possess a complete power of preventing their wards from becoming overcrowded by the pauper inmates of workhouses, it is impossible to shut our eyes to the great abuses in the system of out-door Medical relief at the Hospitals; a system, as at present conducted, which unduly curtails the emoluments of the hard-working practitioner, entails an enormous amount of gratuitous labour upon the Assistant-Physicians and Surgeons of Hospitals, and achieves very little good either for the public or for the interests of science. We agree with Mr. Whitfield in thinking that the distribution of Hospital letters should undergo some restriction, and that one of the duties of the Medical Officers of Health might be to prevent improper persons from becoming [illegible]nients of Hospital Medical relief.

Dr. Hassall's labours in detecting the adulterations in food, drink, and drugs, were recognized last week by a public dinner held in his honour at the Freemason's Tavern, and by the presentation to him of a handsome Testimonial. The chair was filled by Lord William Lennox, and he was supported by several gentlemen both of the Medical and other Professions. Perhaps the most remarkable circumstance of the evening was the complete reconciliation which was announced between Dr. Hassall and his former patron and friend, Mr. Wakley, who, in a humorous speech, declared that he has passed an evening of "unadulterated" pleasure, and highly extolled Dr. Hassall's inflexible integrity and brilliant abilities. We are glad to find, that the attention of the Legislature and of the public generally has been turned in earnest to the question of adulteration; and we have reason to hope that some stringent measures may, before long, be introduced on the subject.

We are happy to learn that another attempt is about to be made to obtain a Park for the borough of Finsbury. The newly-appointed select Vestry of Islington has taken up the matter, and is determined to treat it energetically. Till the War put a stop to all expectation of pecuniary aid from the treasury of the country, the promoters of the scheme for the Albert Park were sanguine of success. One Government after another admitted the importance of the project, and promised its assistance. Again is the subject mooted, and, although some of the space available two years ago is occupied by buildings, yet enough remains for the formation of a capacious and ornamental park, wherein the inhabitants of the adjoining metropolitan parishes may find health and recreation. We will not enter into the arguments urged in favour of the proposed site at Highbury. It will suffice to say that, while Finsbury has borne its share in the expenses attendant on the formation of Parks for other metropolitan districts, it is the only borough which is left without an open space guaranteed to it by enclosure. Here is a case in which Sir B. Hall may legitimately use his energy and influence for the benefit of a large portion of the working population, without running the risk of giving offence to any class or section of the community. We hear it is the intention of the Committee specially constituted out of the Islington Vestry, to call upon the Vestries of adjoining parishes to assist in this new movement, and to press it upon the immediate attention of the Metropolitan Board of Works. The Medical Officer of Health for Islington, Dr. Ballard, is, of course, interesting himself in promoting the scheme. Let the Health Officers of Clerkenwell, St. Luke's, and Shoreditch, also earnestly throw the weight of their influence into the scale, and stir up their respective Vestries to active co-operation. We have not yet heard whether the new Vestry of Islington has yet extended its vigilance to the state of the Parish Workhouse, but we have no doubt that the condition of the unhappy inmates of this establishment will soon attract the attention of the Board.

A new era in the history of Military Hospitals commenced on Monday last, when Her Majesty assisted in laying the first stone of the new Government Hospital for sick and wounded officers and soldiers, near Southampton, on the banks of the Solent. The convenience of the site is obvious, as the fatigue of land-carriage will be entirely superseded, and the patients will be landed immediately from the water. We understand, also, that the district is salubrious, notwithstanding the flatness of some part of the adjacent country. We are very happy to find that the great want hitherto existing, of a Military Hospital worthy of our country, is now about to be supplied, and we offer our best wishes for the success of the new establishment as a receptacle for our disabled troops, and as a school of Military Surgery.

The biennial dinner of the Medical Benevolent Fund is fixed for Wednesday the 4th of June, under the Presidency of the Right Hon. Henry Labouchere, at the London Tavern. A long and most influential list of Stewards testifies to the regard in which this excellent Fund is held by the members of our Profession. Although the Medical Benevolent Fund can boast of no building for the reception of the decayed members of our body, or for the education of our youth; and, although it cannot be regarded in the light of a Provident Fund which gives back what it receives, yet it is enabled by its yearly income to relieve much of the wretchedness of our unfortunate brethren, whose misfortunes constitute their sole claim to consideration. The assistance afforded to many a sorrowing brother or sister, is afforded without the revelation of the names of the recipients, and hence the advantages of the Fund are not so widely known as they might otherwise be; but the names of the Committee are a sufficient guarantee that the relief is appropriately distributed. We have no doubt that a numerous party will assemble at the Festival, and that many new Subscribers will be added to the Fund.

The Registrarship of the University of London has been conferred upon Dr. Carpenter. Although regretting that the appointment has not fallen upon a Graduate of the University, yet Dr. Carpenter's claims are so strong that we anticipate only a feeling of universal satisfaction at his success. Dr. Carpenter's merits, as a writer on Medical Science, are too well known to require eulogy at our hands, and we rejoice that a life of unremitting application to study has received a reward so honourable to himself, and to the Senate of the University.

REVIEWS.

The Obstetric Memoirs and Contributions of James Y. Simpson, M.D., F.R.S.E., Professor of Midwifery in the University of Edinburgh, etc. Edited by W. O. Priestley, M.D. Edinburgh, and Horatio R. Storer, M.D. Boston, U.S. Volume II. Edinburgh: Black. 1856.

In the *Medical Times and Gazette* of last year (Vol. II., 1855, p. 169), we noticed the first part of the publication before us, in which the scattered papers containing the first germs of Dr. Simpson's opinions are now collected into two portly volumes.

The first series of papers in the work before us relates to the pathology of the puerperal state, and begins with a disquisition on the analogy, or rather identity, of puerperal fever with surgical fever, under which latter term Dr. Simpson includes all the maladies which are liable to follow Surgical accidents and operations, and which are described by writers under the names pyæmia, phlebitis, erysipelas, consecutive pneumonia, and so forth. There is nothing particularly new in this, as it is the idea with which we were made familiar long ago by Dr. Ferguson; but if he does not propound a new doctrine, Dr. Simpson, with his usual ability, brings forward an immense mass of evidence in support of an existing one. More particularly he directs attention to one practical fact. Accoucheurs are now keenly alive to the possibility of communicating puerperal fever, and to the necessity of abstaining from all possibility of infecting a puerperal woman with any septic poison. But, if puerperal and surgical fevers be identical, Surgeons should take equal pains to avoid all danger of infecting Surgical patients. Dressers at Hospitals should not perform post-mortem examinations; Professors of Anatomy should not perform Surgical operations; patients whose cases admit of delay should not be operated upon during a *pyæmic* epidemic; persons, instruments, sponges, and bedding that have been in contact with an erysipelatous patient, should not be employed about any other patient without ample purification.

Dr. Simpson also calls attention to a subject which is not new, but which is probably not perfectly familiar to the Profession. In any given case of *general* blood infection, what are the circumstances which determine the localization of disease? Now, it is well known that, in gout, rheumatism, and some of the exanthemata, the *materies morbi* has a special predilection for any part which is already diseased or injured. Dr. W. Budd relates a case of small-pox, discrete over the rest of the body, but confluent on the site of a recent bruise. Arguing from these premises, "Might we," says Dr. Simpson, "regulate in any degree the principal site of the secondary inflammatory effusions in puerperal or Surgical fever, by lowering, by some means or other, the vitality of a selected portion of the surface of the body? Various continental Surgeons have spoken highly of the beneficial effect of the actual cautery to parts of the body in bad cases of surgical fever. Does it act upon the principle alluded to?"

We next meet with a series of papers in which the phenomena of obstruction of the arteries from fibrinous clots, the general pathological relations of which have been elucidated by Dr. Kirkes and Mr. Paget—are discussed in their relation to the puerperal state; and abundance of cases are quoted of gangrene, arteritis, and sudden death, arising from this cause.

Next we have a paper on Tetanus, caused by the puerperal state, or by disease or injury of the unimpregnated womb. Here, too, there is nothing very new, but many interesting cases are collected of this frightful, and, luckily, rare disease.

To this follows a series of speculations on the attitudes and positions of the fœtus in utero. Dr. Simpson shows that gravitation, and other physical causes, have really nothing to do with the presentation of the head at the os uteri; but that it is a vital phenomenon dependent on muscular movements of the fœtus, excited through the reflex spinal system; and that by virtue of this function of the spinal cord, the muscles of the fœtus cause it to assume such a position as will keep its cutaneous surface as far as possible from all causes that may act upon it as excitants.

Abnormal presentation he traces either to the fact that parturition occurs before the fœtus has assumed the position natural to the end of pregnancy; or to death of the fœtus; or to causes altering the normal shape of the uterus or of the fœtus. And since abnormal presentation is a thing likely to recur in successive labours, it will be well worth the Practitioner's while to investigate the causes, in order, if possible, to remove them. Such are dropsy of the amnion, accumulations in the colon, and spasms of the uterus, which are more or less preventible causes.

We must pass over without remark the Essays on diseases of the fœtus in utero, and of the placenta, the very elaborate articles on hermaphrodism and malformations, on the employment of chlorate of potass to prevent premature death of the fœtus, and on inunction of oil, as a preservative against scrofulous phthisis. The last 300 pages are occupied with a reprint of Dr. Simpson's papers on the use of anæsthetic agents; respecting which we do not hesitate to say, that the boldness and originality of Dr. Simpson's conceptions, his industry in experiment, and the lucid and unanswerable arguments by which he vindicates the use of chloroform, are such as to entitle him to the gratitude of humanity at large.

We must not omit to add, that some portions of this volume, such as the disquisition on arterial obstruction, and on the rudimentary reproduction of extremities after spontaneous amputation in utero, are quite new. The entire work is dedicated to Dr. Locock in a short letter, in which the writer fears that "he is deficient in the principal qualifications requisite for success in Medical authorship." The success was achieved before the work was published in its present form.

Essays on State Medicine. By Henry Wyldbore Rumsey. Pp. 424. London. 1856.

State Medicine, or the application of Medical Science to the physical and social wellbeing of society, has only recently in this country attracted the attention which its importance demands, and of which the examples of continental nations might long ago have taught us the value. The new Metropolis Local Management Act has now fairly opened this hitherto uncultivated field. Abundant already are the labourers, the constituted staff of Officers of Health, about to be associated in one body, and from whom much will be expected. Not a few of these are men of known literary and scientific eminence, to whom continental languages are familiar, and French and German Hygienic and Sanitary proceedings are not totally new. Combining the information derivable fr-

these sources with their own daily experience, and the fruits of other British labour in the same field, we may confidently expect to possess, before many years, as complete and efficient a code of laws for the direction of State Medicine as can be boasted by any of our neighbours. Mr. Rumsey's Essays are very opportunely published, being suggestive of many measures which must form essential parts of a consistent or practicable machinery of State Medicine. They do not profess to meet all the requirements of details,—these Essays must rather be regarded as suggestions, or memoranda, of *agenda* in State Medicine. We shall lay before our readers the several subjects of these Essays in the order in which they are found.

1. *Outline of a Sanitary Code.*—The topics touched upon in this Essay, are, *State Investigation;* into the statistics of population, mortality, reproduction, sickness, dwellings, food, animal life. *Sanitary Regulations;* of localities, construction of buildings, etc., drainage, physical education, public recreation, sale of food, medicines, poisons, interment, Medical attendance, Dispensaries, Hospitals, vaccination, etc. *Administrative Machinery;* including Medical education, etc. Councils of Health, sanitary districts, etc. This Essay constitutes, in fact, a sort of index of matters more fully treated in succeeding Essays; a skeleton scheme to be filled up.

2. *Education in the healing and health-preserving arts.*—Involving the whole question of Medical reform, whence is to follow "an improved system of Medical education and organization," without which, the author is of opinion, no very satisfactory machinery for the protection of the public health can be expected. Not attempting to dispute the need of Medical reform, we think the facts of the case speak out for themselves. Sanitary reform has emanated from the Medical Profession, and has become accomplished, while the advent of Medical reform is yet being proclaimed. The grounds of Medical reform are clearly laid down by the author; but it is not to be supposed that to him only is reserved the achievement of constructing such a system of Medical education as shall meet with universal approbation. We think, for example, there is little probability that any state limitation could be put to the number of admissions into the Profession, as suggested by Mr. Rumsey. Existing "requirements" would always be open to doubt. We have heard of the insufficiency of the supply, under existing limitations, in the clerical Profession. In the Medical Profession, free to find its own level, the supply will never much exceed the demand.

3. *On Sanitary Inquiry: its methods and defects in England—the directions in which it needs extension under State authority.*—In this essay Mr. Rumsey gives an historical sketch of the subject, and exposes the blunders that have been committed by many of the best intentioned sanitary reformers. The present imperfections in the system of registering deaths is pointed out, as is also the entire want of any efficient sanitary record, or statistics of the sicknesses of the poor; of industrial pathology, etc.

The Author devotes a chapter to the subject of the investigation of epidemics, including quarantine regulations, and the several reports on cholera by Dr. Farr, Dr. Baly, and others, and severely criticises the conduct of the former Board of Health. The formation and objects of the Epidemiological Society, and of the International Statistical Congress, are also here introduced.

4. The fourth essay treats of the Medical care of the poor in England, with notices relating to Ireland; their history and present position.

5. Under the head of Local Sanitary Administration, Mr. Rumsey has given an outline of the German and French systems, and then comes to the unconnected and irregular measures that have been adopted in England.

6. In the last Essay he lays down certain departments of Health Police, *e.g.*, registration of births and deaths; medico-forensic evidence; detection of adulterations; public vaccination; Health Officers; Inspectors of Hospitals, asylums, medical charities, etc.

With a great deal of what Mr. Rumsey has brought together we are all familiar; the details, however, of each department will be better estimated by those whose duty it is to become acquainted with them. The Profession, nevertheless, will thank the Author for having so well performed the laborious and tedious task of collecting all these matters into so small and practicable a compass that they may readily be made available to all who consult his volume.

The Fern Allies. Illustrated by John E. Sowerby. The Descriptions, Synonyms, etc., by Charles Johnson, Esq., Botanical Lecturer at Guy's Hospital. With 31 Coloured Plates. London. 1856.

The Ferns of Great Britain. Illustrated by John E. Sowerby. The Descriptions, Synonyms, etc., by Charles Johnson, Esq., Botanical Lecturer at Guy's Hospital. With 49 Plates. London. 1855.

British Poisonous Plants. By Charles Johnson. Illustrated with 23 Coloured Plates. London. 1856.

The name of Mr. Sowerby has long been associated with the science of Botany, and the pictorial illustrations to the great work on "English Botany" will always remain a monument to his taste and accuracy in delineating the different members of the Vegetable Kingdom. In one of the volumes before us we have the representations of forty-nine species of British Ferns, a tribe of plants no less distinguished for the variety and beauty of their forms, than for the peculiarity of their organization. The "Fern Allies" present us with a series of vegetable beings, which have but little affinity to Ferns, although they agree with the latter in the absence of flowers and sexual organs. This group, according to the author of the work before us, comprises the Equisetaceæ, Marsileaceæ, Lycopodiaceæ, and Characeæ, which differ almost as much from each other as they do from the Ferns. The Characeæ, comprising the genera Chara and Nitella, were formerly classified among the phanerogamous plants, but are now supposed to be cryptogamic.

The little work on the Poisonous Plants of Britain, with its plates transferred from the "English Botany," will be found of great use to the Medical student, as well as to all those who desire to make themselves familiar with a very important branch of botanical science.

June: A Book for the Country in Summer Time. By H. T. Stainton. Pp. 141. London. 1856.

The object of this little work is to encourage the love of Nature by describing the features presented by the country in summer-time. The advantages of studying Natural History are forcibly pointed out, and the study of Entomology in particular is strongly recommended to the young and to all those who have taste and leisure for out-door pursuits.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON POST-MORTEM MUSCULAR CONTRACTIONS IN CHOLERA OR YELLOW FEVER.

By M. BRANDT.

M. Brandt, in a recent thesis, endeavours to show the truth of M. Brown-Séquard's explanation of this phenomenon. According to this, it is met with in cholera especially under three circumstances:—When there is great muscular development, when the disease has lasted a short time, and when cramps have been absent or have soon ceased—the short duration of the disease being the most important of these. In a great number of cases it is the muscles that have not suffered during life from cramp that exhibit these contractions. For the production of the phenomenon, in fact, the muscles must possess a considerable amount of irritability, and these very excitable muscles are stimulated into action by the carbonic acid accumulated in the blood and muscles. M. Brandt describes a course of experiments proving the action of carbonic acid in exciting the irritability of muscles and the spinal nerves; and he believes this action to be analogous to that produced by venous blood loaded with carbonic acid.—*Gaz. Hôp.* 1855. No. CXXIV.

ON CHLOROFORM IN AFFECTIONS OF THE CHEST.

By Dr. BREITHAUPT.

Dr. Breithaupt states that he has found chloroform useful not only in pneumonia, but in the form of bronchitis that nearest approaches to this, the bronchitis cruposa capillaris, in which the small bronchial tubes become filled with fibrous

exudations. It is, in fact, just at the most dangerous periods of these diseases it becomes most useful, viz., when an accumulation of exudation takes place in the cells of the lungs or in the finer bronchi, inducing great dyspnœa, and impeding the de-oxygenation of the blood. The author, after frequently employing chloroform in catarrh, and in the first stage of pneumonia or bronchitis, has come to the conclusion, that it exerts no special action, nor is attended with any mischievous effect, although it cannot always be given with impunity in large and frequent doses. It at once diminishes the dyspnœa and irritating cough, but does no more, and should not be trusted to the neglect of venesection except in those slight cases in which a mere antiphlogistic regimen suffices for a cure. But while in the early stages it is a mere adjuvant, it is at a later period a means of great value, when from the obstruction of the cells and smaller bronchi a severe degree of dyspnœa is produced and paralysis of the lung threatened. While the means usually employed, as arnica, benzoin, or camphor are useless or only aggravate the condition, the chloroform proves of great utility. Dr. Breithaupt believes it acts on the one hand by expanding the obstructed part, and aiding by this, as well as by its locally stimulating influence, the expectoration, and, on the other hand, by the calming influence it exerts upon the irritated nervous system of the respiratory organs. In the cases related, the patients seemed as if suffocated, and the sensorium had begun to be disturbed; freer and deeper respiration followed when the sense of pain and anguish had been removed. Such freer expansion of the lung necessarily gave rise to a freer pulmonary circulation and a better oxidation of the blood. The best proof of this influence is seen in its employment for the paroxysms of dyspnœa in phthisis. Here, where blisters, analeptics, opiates, etc. not infrequently add new inconveniences to those in existence, chloroform, in its tranquillizing and reviving effects can scarcely be surpassed by any other agent.—*Med. Zeitung*, 1855. No. XXXIX.

ON SIMPLE ULCER OF THE STOMACH.

By M. CRUVEILHIER.

M. Cruveilhier has recently presented two papers to the Académie des Sciences upon this subject, and the following are the general conclusions:—1. There exists a disease of the stomach that may be anatomically characterised as simple ulcer of the stomach, usually chronic. 2. This lesion, which is far more common than is usually supposed, differs from cancerous ulcer, with which it is generally confounded, in its curability. 3. It is susceptible of complete cicatrization, this being accomplished by means of very firm fibrous tissue, differing essentially from scirrhus, with which it has been confounded. 4. When the ulcer penetrates through the whole of the coats of the stomach, the loss of substance is repaired by surrounding organs, which also sometimes participate in the ulceration. 5. Danger may continue even after the cure of the ulcer, as the cicatrix often becomes the seat of consecutive ulceration, with all its attendant accidents. 6. It is one of the most frequent causes of blackish vomiting and dejections, and the most frequent one of hæmorrhage of the stomach, whether accompanied by hæmatemesis or not. 7. Simple ulcer is the most frequent cause of perforation of the stomach. 8. The two principal accidents are hæmorrhage and perforation, which take place more commonly consecutively, *i.e.*, by the erosion of the cicatrix, than primarily, or during the period of formation of the ulcer. 9. This ulcer, or ulcerative gastritis, may be always suspected, and almost always positively diagnosed. 10. It is distinguished from idiopathic gastralgia by the permanence of the symptoms it gives rise to, although these have alternations of exasperation and remission. Gastralgia is only temporary, comes and goes suddenly, leaving no traces of its presence, and may be suddenly relieved by opiates. 11. It is distinguished from non-ulcerative gastritis and gastralgia by black vomit and stools. It is very probable, however, that simple ulcer may exist without these discharges, and then its diagnosis from gastritis would be difficult. These black discharges are not characteristic of cancer, and, to some extent, are more inherent to simple ulcer than to it, for they belong to all periods of simple ulcer, of which they constitute the first symptom, while cancerous ulcer is not attended with them until the last stage, and sometimes not at all. 12. The distinctions between simple and cancerous ulcer are founded on, first, the physical signs, there being no tumour in the former; and, next, on the pain which is often absent in cancer but never in ulcer. The pain in the latter is like that of an open wound or burn, opposite the xyphoid appendix, striking through to the spine. In cancer there are cramps or spasmodic contractions, with induration of the stomach. 13. The true touchstone is the effect of alimentary regimen, which completely fails in cancer, but succeeds surprisingly in ulcer. 14. The great object in treating the disease is to find an aliment that is tolerated by the stomach without pain, for then the cure may soon be effected. In the immense majority of cases, milk diet induces improvement from the very first day, and sometimes operates like magic; but when it ceases to be agreeable to the patient, or fatigues the stomach, we must unite it with other substances, in the choice of which the instincts of the stomach must be consulted. Alimentary regimen, in fact, constitutes the entire treatment, but nothing can be more difficult than the direction of this, according to quantity, quality, repetition, preparation, and temperature. 15. Medicinal substances, whether general or topical, are quite secondary in importance. Iron and bitters are quite contra-indicated; and opium only succeeds when gastralgia is associated with the inflammatory action. Gaseous waters, ice, alkalis, and especially phosphate of lime prepared by the calcination of bone, alkaline and gelatinous baths, cold ablution of the entire surface, (in some cases very hot ablutions,) cold baths, and, in some cases, very hot sitting baths, stimulant frictions, with shampooing of the entire surface, derivatives or revulsives applied to the epigastrium—are the means which have seemed to exert most influence on the progress of the disease. 16. It must never be forgotten, that this ulcer is very liable to relapse, such relapse sometimes going on to hæmorrhage or perforation. Such relapse may be certainly prevented by a good alimentary hygiene, and avoiding medicinal stimuli.—*Comptes Rendus*, Tome XLII. Pp. 81, 421.

GENERAL CORRESPONDENCE.

AMPUTATION IN COMPOUND FRACTURE OF THE FEMUR.

[To the Editor of the Medical Times and Gazette.]

Sir,—I see in your report of the proceedings of the Crimean Medical Society, that Dr. Menzies supports his argument, that it is not always necessary to amputate in compound fracture of the femur, by allusion to a case then living in the camp. I had under my care, after the attack of the 18th of June, an interesting proof that even compound comminuted fracture of the femur does not always require amputation.

Sergeant T. M'C., 18th Regiment, was admitted into one of my wards, with a rifle wound of the gluteal region. The ball had entered behind the trochanter major, and had passed downwards and anteriorly for about six inches, to a spot on the outer side of the thigh, where it could be indistinctly felt under the fascia and muscles. The man could, with great pain and difficulty, flex his thigh. I put him under the influence of chloroform, and cut down on the ball, and extracted it; it was almost cloven in two by contact with the bone. I then found that the femur was extensively comminuted, but so far as I could judge with my finger in the wound the joint was not injured, nor was the shaft of the femur broken through. I extracted two or three large splinters—one, I find by my notes, between 2 and 3 inches long; when the principal Medical Officer coming in, expressed an opinion (which he subsequently saw reason to alter) that there was fracture into the joint. He ordered me to desist from removing the splinters, to stitch up the wound, and reserve the case for amputation at the hip-joint. This operation was not performed. There was, of course, extensive suppuration, which the man bore very well. He was sent to England, and writes me word that he was ninety-eight days on the passage. Twenty-seven pieces of bone came away; but at the date of his letter he was perfectly well, and could walk about as well as the stiffness of the muscles would allow him.

The recovery in this case must, I think, be attributed to the fact that the shaft of the bone was not broken across, as it is hardly credible that, if such had been the case, conjointly with such extensive comminution, the man could have recovered.

I am, &c.

R. Hall Bakewell, M.D., M.R.C.S., &c.

Purton, Wilts, May 17, 1856.

DR. MARSHALL HALL ON ASPHYXIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—My attention has just been directed to Dr. Marshall Hall's paper regarding asphyxia, published in the *Lancet*. It is a matter which occupied my anxious consideration for some period previous to my reading a paper thereon before the Bath and Bristol Branch of the Provincial Medical and Surgical Association, which was published in their Journal, as long since as the 8th and 22nd of April, 1853. The cases therein referred to occurred in my practice on the 13th of April, and 30th of October, 1850; but feeling that the sentiments I entertained on the subject were totally opposed to the hitherto-expressed opinion of the whole Medical world, I instituted a series of experiments on animals to prove the truth of my theory before submitting my views to the Profession. I am not one of those who "rush into print;" but finding the subject did not attract the notice of the Profession as much as I wished, I went to London and consulted my highly esteemed former teacher, Dr. Todd, who advised me to publish my views thereon; but a change of my sphere of practice at that time prevented my so doing more fully, than by circulating a number of copies of my paper published in the Journal. Feeling the subject to be second to none in importance to the public from the necessity of immediate action in the absence of a Medical man in cases of drowning, etc., on July 16th last I pointed out in a letter to the Editor of the *Times*, with reference to another case which had lately occurred, the danger that arises from the use of the hot-bath in cases of asphyxia, and that it should never be used, the practice being unscientific in the extreme; and that even in cases in which I had formerly used it, only with a view of restoring circulation in the extremities, it had proved instantly fatal. I also gave a copy of my paper to the President of one of the Colleges at Oxford, about two years since, in consequence of the arrangements about to be made in the University, from the frequent accidents resulting from boating. Upon reference to my paper published in the Journal, I there said, "I am anxious to learn whether galvanism is usually resorted to at receiving houses in such cases, and with what benefit; also whether the warm bath may not frequently, especially at such an advanced age, produce syncope, and so be likely to prove injurious rather than beneficial." And again, "We constantly find in Medical works or charts containing lists of remedies in cases of accident or poisoning, the warm bath recommended as of great value. We must, however, remember that nothing is to be more dreaded than syncope, for then the functions of respiration and circulation are almost, or altogether, suspended, even although previously thoroughly established. In cases, then, of asphyxia or (speaking more properly) of apparent death by apnœa, frictions and external dry warmth will restore the excitability of the reflex functions; but after restoring we may again exhaust, by the continued application of one stimulant, even warmth. But by employing at intervals electricity, warmth, and other stimulants, we shall excite the reflex function without exhausting or destroying it. In conclusion, allow me to express my wonder, that the Medical Profession has been so slow in awakening to the importance of this subject. I rejoice in knowing that I am at length supported by so able a physiologist as Dr. Marshall Hall, to whom the world has been long since indebted for his experiments relating to the reflex function. I am, &c.

J. C. S. Jennings.

Abbey House, Malmesbury, May 9, 1856.

ROYAL MEDICAL BENEVOLENT COLLEGE.

[To the Editor of the Medical Times and Gazette.]

Sir,—In your report of the Annual General Meeting of the Royal Medical Benevolent College it is stated that £300 had been "bequeathed" to the College by the late Mr. Thomas Watts, of Frampton on Severn. This is not precisely the case. The money is the proceeds of a subscription among the friends of the late Mr. Watts, for the purpose of establishing some commemoration or testimonial; and they have thought that this could not be better done than by establishing a perpetual "Watts Prize" at the College.

I shall be much obliged, if you can spare the space, for the correction of this misunderstanding. I am, &c.

May 21, 1856. Robert Freeman, Secretary.

REPORTS OF SOCIETIES.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 15, 1856.

Mr. Arnott, President, in the Chair.

(Continued from page 472.)

Mr. Hutchinson reported, on behalf of Mr. Henry Gray and himself, on the specimen shown by Mr. Shaw at a former meeting, of

CYSTO-MYELOID TUMOUR INVOLVING THE TIBIA.

The examination made had fully confirmed the description of its microscopic elements given by Mr. Flower. It consisted of fibro-plastic structure, with a sparing proportion of true myeloid cells, the latter being most abundant in the parts of the growth formed within the bone itself, and fewest (almost wanting) in those developed external to the periosteum. From the very small proportion to the whole which these cells formed, the reporters thought that the tumour ought scarcely to be designated as "myeloid," it being rather one of the "fibro-plastic" class. With regard to the part first affected, they thought that it had probably commenced independently within the bone itself, beneath the periosteum, and external to the latter.

Dr. Septimus Gibbon exhibited a specimen of

DYSENTERIC (?) ULCERATION OF THE COLON.

The preparation had been taken from a man, aged 44, who died in the London Hospital, exhausted by diarrhœa and melæna. Inspection showed a large abscess in the cellular tissue of the abdominal parietes, extending from the spleen down to Poupart's ligament. The only other morbid lesion was these six or seven circular ulcers; they seemed to be on the summit of enlarged solitary glands, which were distended with a muciform, transparent, jelly-like fluid. The largest would have received an ordinary-sized bullet into their cavities. Dr. Gibbon hesitated to call them dysenteric, because they were not situated, as usually seen, on the prominent folds and longitudinal bands, but in the sulci; there was no vascularity or induration around them, and no other enlarged solitary glands in the large intestine. Dr. Gibbon stated, that he had once seen similar ulcers in a man who died from pyæmia. Dr. Baly had described similar ones that he met with in a woman who died of empyæmia.

Dr. Gibbon also showed, on behalf of Mr. Curling, a specimen of

ULCER OF THE DUODENUM FROM A CASE OF BURN.

The patient from whom it had been taken had died in the London Hospital, under Mr. Curling's care, in consequence of a very extensive burn. During life no symptoms of intestinal lesion had been noticed. The preparation showed a large irregular ulcer, involving all the coats of the bowel, escape of the contents of which had only been prevented by adhesions which had formed to the under surface of the liver.

Dr. Gibbon also showed a specimen of

CANCEROUS DISEASE OF THE COLON.

A man, aged 60, had been admitted under his care into the London Hospital, on account of symptoms of intestinal obstruction. He had been ill for about two months. Examination with a bougie, etc., having been made, an obstruction about the sigmoid flexure was discovered, and the symptoms being urgent, gastrotomy was performed by Mr. Luke, three days after admission. An incision having been made through the abdominal parietes in the left groin, the peritonæum was opened, and the finger introduced. In exploring with the latter, the gut gave way, and fæces escaped. Extensive adhesions prevented the lacerated bowel from being brought into the external wound, and it was accordingly left *in situ*. Opium was freely given, but the man died next day. Only a partial autopsy was allowed. The bowel torn was found to be the cœcum, which, distended with fæces, and in a remarkably softened condition, was found lying partly in the pelvis and partly in the left iliac fossa. The ascending colon

had also been dragged over with the cœcum, and was united by old and firm adhesions to the sigmoid flexure. The sigmoid flexure itself appeared healthy, excepting in its lower part, where, close to its junction with the rectum, was a cancerous stricture. At this part there was much nodular thickening of the coats, but the index finger could be passed through it. Just above the stricture was an ulcerated opening communicating with the ascending colon, to which its edges firmly adhered. The transverse colon and the small intestine, as far as examined, were healthy.

Mr. Hutchinson inquired why Amussat's operation had not been preferred to that adopted by Mr. Luke. The symptoms during life had seemed to indicate stricture low down, as found after death. The fatal result was, no doubt, due to the delay in treatment, the long distension of the cœcum having disorganized its coats too much for recovery to have been possible. Still it seemed to him that, had this been otherwise, the opening of the colon in the loin, without wounding the peritonæum, would have been much preferable to the operation performed.

Dr. Gibbon replied that the seat of stricture had been doubtful during life, and that the operation by the groin had been thought to afford a better chance of exploration. He even still doubted whether, seeing that the cancerous stricture would admit a finger, some other, and yet undiscovered cause of the obstruction had not existed.

The President stated that Mr. Luke had mentioned to him some facts tending to indicate that the cœcum had possibly given way before the operation.

Mr. Pollock thought it very probable that the giving way of the cœcum had been before the operation. It was a common consequence of the over-distension resulting from obstruction, and often occurred in several parts at once. The peritoneal coat was the first to give way. He could feel no doubt but that, in Dr. Gibbon's case, the cancerous stricture was the sole cause of the obstruction, and he fully agreed in the opinion already expressed, that to have opened the colon in the loin would have been a much safer proceedure. It was clear, however, that no operation could have saved the patient.

Dr. Crisp could not agree with Mr. Pollock's opinion that, in rupture of the bowel from over-distension, the peritoneal coat was the first to give way. He believed that ulceration of the mucous membrane was the first stage.

Mr. Pollock was quite positive as to the accuracy of his opinion, as he had seen specimens in which the peritonæum only had given way.

Dr. Bristowe exhibited a specimen of

CYST IN THE LIVER, WITH CYSTIC DISEASE OF THE KIDNEYS.

The liver weighed 4lb 6¾ oz., and its substance, which was otherwise healthy, was thickly studded with cysts from the size of a Spanish chesnut downwards, and with clusters of cysts. The cysts were thin-walled, and filled with a limpid, colourless fluid, and presented a close analogy to those that are found commonly in cystic disease of the ovary. The kidneys were large; one weighed 2½lb, the other a little more than 2lb. The cortex and, apparently, the medulla, were converted into a series of cysts from the size of a hen's egg to that of a pin's head. Their parietes and form were exactly like those of the cysts in the liver; but their contents varied from a thin serum to a thick, pus-like fluid, which was sometimes white and sometimes red from admixture with blood. Dr. Bristowe remarked on the rarity of cystic disease of the liver, and on the curious fact of its being associated with similar disease in the kidneys. He was disposed to regard it merely as a coincidence. He could offer no suggestion as to the mode in which the cysts in the liver were formed. The case was that of a shoemaker, aged 53, who stated that he had been ill only ten weeks. The urine was bloody, but nothing further was remarked with regard to it. He was very low and feeble on admission, and died two days afterwards.

Dr. Bristowe also exhibited a heart, showing

ANEURISMS OF THE CORONARY ARTERIES.

The aneurisms existed under the form of single pouches, from the size of a pea to that of a tare, and of sacculated portions of artery, the thickness of which varied from ¼-inch downwards, and the length from ½-inch to 2 inches. The walls of the aneurisms were thick, dense, and fibroid, like the walls of large aneurisms frequently are in other situations; and they contrasted in this respect remarkably with the healthy part of the coronary vessels. Many of the aneurisms were filled up by tough, buff-coloured coagulum. There did not appear to be any atheromatose deposit in the coronary arteries. The heart was rather enlarged, but its valves and muscular tissues were healthy. The arteries throughout the body were generally healthy. There had been recent hæmorrhage into the substance of the kidneys. The specimen was taken from a sailor, 22 years of age, who was admitted for what was supposed to be fever. There was nothing to indicate heart disease.

MEDICAL SOCIETY OF LONDON.

Saturday, May 10, 1856.

Dr. Crowne, President, in the Chair.

Dr. Brinton brought forward some experiments on the action of tartarized antimony, which he regretted not having been present to mention when Dr. Richardson's paper was read at the previous meeting. Some five years ago, while investigating the subject of vomiting, his attention had been specially directed to Magendie's celebrated experiment, in which he proved that this substance, injected into the blood, produced its characteristic emetic effect, even though the stomach was excised, and replaced by a bladder. To this proposition, his (Dr. Brinton's) experiments had then enabled him to add that the stomach eliminated antimony from the blood, and thus, by vomiting, could remove it from the system. For example, he took a large dog, and injected into its superficial femoral vein a solution of ten grains of tartar emetic in four ounces of distilled water. The first animal thus operated on instantly fell into a state of collapse, without vomiting or purging. At the end of fifteen minutes it was pithed, and the contents of its (digesting) stomach collected. These were submitted to analysis (by Dr. Beale), and were found to contain tartar emetic in large quantity. Indeed, considering the size of the dog, and the amount of blood it would probably possess, Dr. Brinton could not doubt that the proportion of tartar emetic in the gastric fluids exceeded that in which it was mixed with the blood of the animal; in short, that the poison was not only transferred from the thigh to the stomach, but that it was concentrated, as well as eliminated, in this latter cavity. Hence its local results on this organ and the intestines were easily explained. This method of experimenting, and its results, Dr. Brinton had referred to in an article on the Stomach, published in the "Cyclopædia of Anatomy," (Supplement, p. 319,) as well as in a "Clinical Essay on the Treatment of Fever," (and the value of emetics in the early stage of this disease,) in the *Lancet* for 1853, Vol. II. p. 599. He (Dr. Brinton) would not detain the Society by pointing out which of Dr. Richardson's propositions were especially anticipated by these results of his own, but would rather leave the fellows to form their own conclusions on this point. He would only add, that he disclaimed all wish to insinuate anything against the originality of that gentleman's researches. Considering the multitude of observations that were constantly being published, his experiments might well have escaped Dr. Richardson's notice, even though published in the "Cyclopædia of Anatomy" and elsewhere. Dr. Brinton went on to mention some cases illustrative of poisoning by tartar emetic which had fallen under his notice in the course of the last ten years. In one, a stalwart man of 45, who had pneumonia that involved less than one-sixth of the total organ of respiration, continuous vomiting was alleged to have been kept up by this drug during a whole week. The patient was in a hopeless state when first seen by him. The symptoms were those of a failure of circulation (muscular strength being much less affected), a cold, clammy, perspiring skin, blue lips, and peculiar mental depression and anxiety. The instant and frequent administration of stimulus in large quantities did not prevent his continuing to sink, and he died in about four hours. In two or three other cases of a similar kind, but which were not fatal, he had noticed a peculiar eruption on the skin, apparently analogous to that which is produced by the external application of the poison, although it had only been given internally.

Mr. Wcedon Cooke mentioned a case in which a man nearly

died from the effects of an ounce of butter of antimony, which he swallowed in order to destroy himself. The patient was very greatly depressed, and entirely lost his voice. Brandy, ammonia, and bark were administered, and the patient, who suffered from considerable sickness for several days, slowly recovered.

Mr. Rogers Harrison believed that butter of antimony was not a very strong preparation.

Dr. Brinton mentioned that he had occasionally observed a measly kind of eruption, which he believed to have been produced by doses of tartar-emetic.

A letter was read from Miss Clutterbuck acknowledging the letter of condolence addressed to her on behalf of the Society, on the occasion of Dr. Clutterbuck's death. The writer thanked the Society for its condolence, but expressed a feeling of surprise that no member of the Medical Profession had attended Dr. Clutterbuck's funeral.

Several members stated that they understood it was the desire of Dr. Clutterbuck's family that the funeral should be strictly private, and that it was not usual to offer to attend on such occasions without an invitation to be present; so that it was from no want of appreciation of Dr. Clutterbuck's merits that the Society was not represented at the interment.

The President undertook, at the request of the members, to explain to Dr. Clutterbuck's relatives the cause of the absence complained of.

Dr. Webster, F.R.S., read a paper

ON THE HEALTH OF LONDON DURING 1855,

in which he stated that the metropolis exhibited a diminished rate of mortality last year compared with the previous twelve months; the total deaths being 61,506, or less by 12,545 than in 1854: thus giving one-sixth decrease. Estimating the aggregate metropolitan population at 2,500,000, the above figures make the rate of mortality, for 1855, 1 death to every 41 inhabitants then living. This result is satisfactory, seeing, that in some former years, the proportion occasionally rose to a much higher amount. Different districts, however, supplied varied degrees of mortuary details; the western and northern divisions of London being the most salubrious, but the eastern the reverse; while the end of January furnished more deaths than any other period, the third week of July, and second week of October, proving the least lethal throughout the entire year. Various diseases showed an augmented severity, if contrasted with mortuary results similarly recorded during 1854. Among these, small-pox occupied a prominent position, 1024 persons having died by that loathsome malady, instead of 676 the previous twelve months Bronchitis, consumption, and croup, were likewise more fatal recently; while the want of breast-milk cut short the existence of 358 young infants, being a larger number of deaths in that category than any former annual report ever enumerated. The author strongly condemned the very unnatural, though too fashionable custom, of having wet-nurses for children, which is most injurious, by depriving many babes of that best of all food—*their own mother's milk*. Deaths from violence were likewise increased, 1803 human beings having been killed, or deprived of life, by an accidental cause, during 1855, against 1767 in the year preceding; thus showing that one person's mortal career was abridged by violent means in every 34 deaths registered from all causes. This constituted an important fact, and hence proves the precarious tenour by which human existence often hangs, especially among the labouring classes of London. Several maladies manifested, on the other hand, a decrease in their mortuary details, the most marked being cholera, whereby only 146 fatal cases were recorded, the largest proportion, or 106, having occurred in autumn. Diarrhœa, measles, scarlatina, and other skin complaints, were likewise less rife, of which carbuncle formed a marked illustration, 53 deaths being reported by that disease, instead of 91 in 1854: thus indicating the malady to have diminished of late among metropolitan residents. Analogous to many previous years, and notwithstanding the immense urban population now congregated together, numerous affections supplied a singular uniformity in actual mortiferous results; cancer, apoplexy, pneumonia, and nephria, besides several affections of the urinary organs, being truly remarkable. The former, or nephria, having caused 200 deaths, instead of 195 in 1854; stone, 34 to 33; and cystitis, 37, fatal terminations, during each of these years. After specifying various statistical details, the author next adverted to the total deaths which occurred in metropolitan public institutions, the aggregate number reaching 11,310, or nearly one-fifth of the entire mortality. Among these, 6652 were in workhouses, and 2956 in general hospitals; the majority being females in the former, but, in the latter, two-thirds were males. Prisons, on the contrary, appear to have been very healthy, only 71 persons, 14 being females, having died in such establishments; containing usually about 6600 prisoners; and as upwards of 40,000 inmates annually pass through these receptacles, Dr. Webster thought the above facts warranted his saying, "Confine individuals of depraved habits, defective moral principles, irregular conduct, and especially if addicted to crime, or who possess no control over themselves when their bodily health is bad, in London gaols, as they will often thereby acquire much better condition, both mentally and physically, than such depraved parties, in many instances, previously manifested." Subsequently, allusion was made to the occupation of males, aged 20 or upwards, whose deaths were recorded, and thus ascertain their respective rates of mortality: for example, makers of chemicals seemed to follow a most healthy employment, as only 1 person died in every 141 so engaged; whereas Greenwich and Chelsea pensioners, as might be expected, were placed at the bottom of the entire series, their ratio falling under 1 death to every 12 residents of these institutions. On the other hand, Medical Practitioners ranked higher than lawyers or clergymen, the first being 1 in 77; next, the clergy, who gave 1 in 63; while members of the legal profession furnished 1 in 55; hence showing that for every two Medical men there died 3 lawyers, when calculated according to their respective living numbers. Further, as to trades, publicans supplied twice the relative amount of deaths contrasted with tallow chandlers; while bakers and butchers, however different their mode of life, diet, and usual places of business,—the former living generally much in the open air, but the latter in hot, confined bakehouses,—exhibited nearly parallel results, the mortality among the former ranging 1 in 48, and butchers one in 47. Again, fishmongers, who resemble butchers in some points—such as being much occupied in open shops, but eat more fish than animal food—in every 44 gave 1 death. Lastly, regarding handicrafts, it becomes worthy of mention that musical instrument-makers appear to have been the most salubrious class, 1 death in every 59 persons so designated having been observed; whereas, among working saddlers, the ratio reached 1 in every 37 operatives of that category. Other interesting comparisons, illustrated by an elaborate Table appended, were likewise made; but space prevents the subject being now more fully pursued. When concluding his paper, of which the present Report merely gives an abstract, the author made one or two general observations regarding the weather, and chief atmospheric phenomena noticed during last year; as he considered these influences then materially affected public health. Compared with ordinary seasons, 1855 proved much drier than usual; as only 21 inches and a portion of rain was stated to have fallen at Greenwich Observatory. The mean temperature likewise varied less than in many previous years, its daily average range seldom appearing considerable, the greatest having prevailed in spring, the least in autumn, when much electricity was observed, and at which period, it should be noted, London seemed unusually free from illness, while deaths were much less numerous. The thermometer rarely oscillated beyond eleven degrees in one day during the last ten weeks of 1855, being generally about nine degrees, which therefore constituted a moderate variation of heat in the rather changeable climate of England. Such limited diurnal alternations of temperature, Dr. Webster thought, contributed decidedly to that excellent physical condition which many people had experienced in the latter portion of the period brought under review in his communication. Indeed, he finally said, Physicians might very confidently infer, wherever any marked difference of temperature is observed betwixt day and night time—particularly, should dryness of the air alternate with humidity—if diminished electrical tension prevails—or the barometric pressure ranges low,—then sickness more frequently supervenes, and mortality appears augmented in consequence. When opposite atmospheric phenomena obtain, assuredly public health will be promoted, and the season prove *pro tanto* salubrious.

Dr. E. Smith called in question the value and accuracy of the document from which the author had obtained his statistics. One source of fallacy, he said, was that the descriptions of the occupations of persons at the Census did not always correspond with the descriptions given at death. In some occu-

pations the mortality was stated to be as high as one in two, (a grossly improbable average,) while in other, and sometimes kindred occupations, the rate was only one in 300 or 400.

Mr. Rogers-Harrison considered statistics perfectly useless, and recommended the members to place but little reliance in them.

The President remarked on the singular fact, that the men who work in sewers appeared, from an inquiry instituted some time ago, to be an exceedingly healthy class of men.

Several members defended the use of statistics, (especially in their bearing on preventible diseases,) when made to extend over a large area and a sufficient length of time.

The author having replied, the Society adjourned.

MR. GRIFFIN'S APPEAL TO THE POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by the insertion of the following letter addressed to the Poor-Law Medical Officers, with drafts of a Petition to Parliament, and a Memorial to the Poor-Law Board, copies of which are forwarded for distribution to the Local Secretary of every Union that has joined, and to the Medical Officer of the House in every unappointed Union.

If Members of Parliament could be induced by their Medical constituents to attend the meeting they might acquire a more perfect knowledge of our grievances before they are called upon to legislate on them in the House.

Officers from 246 Unions have joined the Poor-Law Medical Reform Association, and Subscriptions to the amount of nearly £180 have been received. I am, &c. Richard Griffin.

12, Royal-terrace, Weymouth, May 17, 1856.

Dear Sir,—I beg to submit to your notice the draft of a Petition to Parliament, in order that you may give it your best consideration prior to the General Meeting, where its clauses can be discussed seriatim.

A copy of the Petition, as sanctioned by the Meeting, I propose should be transmitted for signature to each Union, and thence be forwarded to the M.P. for the locality, with a private note requesting his support of its prayer, by which means we shall ensure the attention and enlist the sympathy of the entire House of Commons.

It appears to me both desirable and courteous, that a Memorial to the Poor-Law Board should be presented from each Union, (a copy of which is appended for your approval,) but on no account must it supersede an immediate appeal to Parliament.

It is most important that some influential Member of the House, conversant with the subject, should be induced to found a motion on these Petitions; I therefore trust gentlemen will be prepared to name an eligible advocate of our cause, on whom a Deputation may wait.

In the subjoined list of Unions some few are included, where, from various causes, meetings have not been held; but Officers in their individual capacity have proffered their support, and the daily increase of the number of our adherents inspires me with a conviction that, eventually, none will have the unenviable notoriety of standing aloof from this important contest.

I have opened an account at the Bank of Messrs. Williams, in the name of the Poor-Law Medical Reform Association, and have a balance in hand of rather more than £100, from which, however, the expenses of the London Meeting, and future disbursements must be defrayed.

I am, dear Sir, faithfully yours,

Richard Griffin.

12, Royal-terrace, Weymouth, 21st May, 1856.

P.S.—Be good enough to forward a circular to each of your colleagues; I would willingly do this myself, and spare you the trouble, but I am unacquainted with the names and residences of the Medical Officers, as no list has been printed since 1853; the postage can be deducted from any subscriptions you may receive, or I will transmit the amount if desired, but under no circumstances omit to send them.

Draft of a Petition to Parliament.

To the Honourable the Commons of Great Britain and Ireland, in Parliament assembled.

The Petition of the undersigned Medical Officers of the Union, in the County of

Respectfully sheweth—

That the Union Medical Officers of England and Wales, numbering upwards of three thousand, do, as a class, suffer most grievous injustice. That they have the care, during sickness, of the paupers in England and Wales, who in 1856 amounted to 876,655 persons; in addition to these they are compelled to attend a large proportion of the labouring population, estimated at about four millions.

That the education required to fit your Memorialists for these important duties is of a most expensive character, and requires a series of years for its attainment.

That their services are of a most arduous description, requiring attendance by night and by day, and exposure to the most inclement weather, by which their health is seriously endangered, and their lives are frequently shortened.

That the payment hitherto accorded them has been most inadequate to the duties performed; as will be apparent from the evidence of Mr. Cane, of the Poor-Law Board, before a Committee of your Honourable House; he says (No. 166): "My impression is, that taking the whole kingdom together, the payment per case to a Medical Officer would not average more than 3s." For this trifling pittance your Memorialists have to find drugs, which, according to the evidence (No. 3269,) "cost in dispensaries 2s. 1½d., and in hospitals 4s. 4½d. per head," or a mean of more than the average payment of 3s. In addition, there are numerous incidental expenses,—horses and carriages to purchase and keep,—servants, tolls, and taxes to pay, and expensive instruments to provide.

A Committee of your Honourable House has admitted the hardships complained of, by recommending in 1854,

"That the Medical appointments should be permanent."

"That the salaries should be revised and increased."

"That the districts should be examined."

The first of these only has been carried out to any extent. The Poor-Law Board has itself acknowledged the injustice of the payment, in its recommendation for the relief of the Poor in 1839, and repeated in 1841, "that the Medical Officers should receive 6s. or 6s. 6d. per case in the rural districts, and the remuneration per case, not on the Pauper list, may reasonably be on a somewhat higher scale, but not to exceed 10s."

Repeated complaints have been made to the Poor-Law Board, the replies to which may be inferred from the statement of its President, in his place in Parliament, on the 26th February last, to a Member of your Honourable House, "That, in regard to the Medical districts and salaries of the Medical Officers, these were matters not immediately under the control of the Poor-Law Board, they being settled in the first instance by the Guardians." To the Guardians innumerable remonstrances have been made, which have obtained but trifling redress, and that in very few instances.

Your Memorialists therefore humbly pray your Honourable House will take their case into your serious consideration, and pass such resolutions or laws as will enable the Poor-Law Board to enforce the recommendation of the Committee of your Honourable House, obtained by Mr. Pigott, in 1854, which your Memorialists would respectfully submit, should be carried out in the following manner:—

1. That a uniform scale of payment shall be adopted throughout the entire kingdom (its rate varies at present from 3d. to 14s. 4d. for each case of sickness;) *e. g.*, in the Weymouth Union it ranges from 1s. 2¼d. to 14s., the paupers, on an average, being equally distant from the surgeons' residence; in many others a similar disparity exists.

2. That a fixed salary, founded on the average number of cases attended during the last three years, be adopted, the sum to be calculated at not less than 5s. per case, with at least 2s. extra for each mile the patient resides from the Medical Officer's house.

3. That the scale of extras, including midwifery, shall be extended, and embrace many operations and bad cases in Surgery not now paid for, a list of which is appended, and that the officer in charge of the Union House shall participate in this arrangement with the District Officer, and that there

shall be no discretionary power to give a fixed salary instead of extras.

4. That all Medical appointments, not only now in force, but hereafter to be made, shall be declared permanent, subject only to good conduct. The districts, however, to be diminished or increased in extent from time to time, as the Poor-Law Board may think advisable.

5. That a revision of salaries take place triennially in each Union, if desired either by the Poor-Law Board, Board of Guardians, or Medical Officers.

6. That Medical orders shall continue in force for each case of sickness no longer than three months, and if renewed, be counted as fresh orders.

7. That a Medical man, conversant with Union practice, have a seat at the Poor-Law Board, and especial control over the Medical department.

8. That the Poor-Law board be requested to define the class of persons entitled to Medical relief, and that it be not left to the discretion of the Relieving Officer.

And your Memorialists will, as in duty bound, ever pray, etc., etc.

Draft of a Memorial to the Poor-Law Board.

To the Poor-Law Board.

My Lords and Gentlemen,—At a Public Meeting of the Poor-Law Medical Officers of England and Wales, held at the Freemason's Hall, Great Queen-street, Lincoln's-inn-fields, May 30, 1856, it was unanimously resolved,—

That a Petition from the Medical Officers of each Union be presented to the Honourable the Commons of Great Britain and Ireland, in Parliament assembled, praying for the redress of those grievances by which they have been so long oppressed.

Your Memorialists are aware that your Honourable Board has the legal power to effect this reformation without the intervention of Parliament; but the utter failure of the numerous and urgent applications to your Honourable Board, leads them to infer that you desire to have your hands further strengthened by the express directions of the Legislature on the subject.

Your Memorialists, therefore, solicit Parliament to impel your Honourable Board to enforce a uniform and remunerative system of payment to the Poor-Law Medical Officers throughout the kingdom, with other beneficial changes which will be found embodied in the Petition.

Your Memorialists further request that your Honourable Board will immediately, in some degree, lighten the burden of their arduous duties, by ordering that the columns for the weekly entry of visits to patients be ruled for a month, to preclude the necessity of writing names, etc., more than once during the four weeks, and thereby diminishing three-fourths of the expense now incurred for books.

That your Honourable Board will be pleased to look favourably upon their Petition to the House of Commons, and will give it such assistance as lies in your power, is the respectful prayer of the undersigned.

(Here follows a list of Officers of Unions who have joined the Poor-Law Medical Reform Association.)

Eastbourne.—At a meeting of the Medical Officers of the Eastbourne Union, it was resolved,—1. That the thanks of this meeting be given to Mr. Griffin for his exertions in the cause of the Poor-Law Medical Officers. 2. That the members of this meeting will give Mr. Griffin their best support in carrying out the suggestions contained in his letter. 2. That a subscription of 5s. per quarter be entered into to defray expenses.—Robert Colgate, Secretary.

Penistone.—The Medical Officers of Penistone Union, by communication with each other, resolve:—1. That without pledging themselves to details, they approve generally of the opinions contained in Mr. Griffin's last circular. 2. That their hearty thanks are due to Mr. Griffin for his zealous advocacy of Poor-law Medical Reform. 3. That each Medical Officer subscribe 5s. (per quarter if necessary,) towards defraying the expenses of the movement. 4. That Mr. Rowley do transmit to Mr. Griffin the subscriptions and Resolutions, and also a copy of the latter to the weekly Medical Journals.—J. T. B. Elliss, Thomas Turton, Surgeon, John Ward, M.R.C.S. Eng., Charles O. Rowley, M.R.C.S. Eng., etc.

HEALTH OF THE ARMY IN THE CRIMEA.

The Inspector-General of Hospitals serving with the Army in the Crimea, in transmitting the Return of Sick for the period ending April 12, 1856, states that

The sanitary condition of the Army continues highly satisfactory; and there has been a decrease in both the mortality and number of sick this week.

Since the furious snow-storm of the 3rd inst. the weather has been gradually getting milder, and now nothing could be more delightful than it is.

This favourable change in the weather has been marked by a decrease of chest-affections, and a slight increase of febrile complaints, but none of them of any great severity, except in the Land Transport Corps, where typhoid fever still prevails; and four out of the five fatal cases of fever which occurred during the week took place in the Land Transport Corps alone.

Of the sixteen deaths which have occurred during the week, five were from fever; two from apoplexy, the direct effects of drunkenness; five from affections of the lungs; two from chronic bowel-complaints; one, a sudden death from the bursting of an aneurism of the aorta; one from the result of an injury to the head, received in a drunken brawl six weeks ago: so that only twelve out of the sixteen are fairly attributable to disease.

The ratio of admission to strength this week has been	1·81 per cent.
Death to strength	0·02 ,,
Sick to well	3·87 ,,
Taking the whole force, and assuming it to be 72,000, the admissions to strength in all the Hospitals, both General and Regimental, have only been	2·19 per cent.
Deaths to strength	0·03 ,,
Sick to well	5·34 ,,

The Inspector-General of Hospitals, serving with the Army in the Crimea, in forwarding his Weekly Return of Sick for the period ending April 26, 1856, states that—

The health of the Army continues remarkably good, and only five deaths from disease have occurred in the whole Army serving in the Crimea during the week—two from fever, two from phthisis, and one from inflammation of the lungs.

A casualty occurred out of Hospital, in a man of the Right Siege Train, who had been absent from his quarters all night, and was found near the Tchernaya, at the point of death, in the morning. His clothes were wet, but there were no marks of violence on his person, and his medal, and two sovereigns in money, were found in his possession.

Four deaths took place in the Land Transport Hospitals—three from fever, and one from disease of the lungs; and a man was killed by the kick of a mule out of Hospital.

The general health of the Corps is improving, but there is an apparent increase of sickness this week from the admission of 200 cases of itch in men who have been attending on mangy animals.

Two casualties have occurred in the Army Works Corps, one under the head of rheumatism, and the other a case of suicide. A death from fever in the Commissariat branch of this Corps occurred in the General Hospital in Camp.

Large fatigue parties have been employed during the week in collecting expended shot, and six men have been injured, two of them seriously, by the explosion of percussion shells that had fallen without bursting when fired; but every precaution has now been taken to prevent such accidents in future, by placing artillerymen at different points, to warn the men of the danger of carelessly handling such missiles.

At Kertch only 3 per cent. were sick, and no casualty had occurred during the week ending April 12.

One death had occurred in the Cavalry Division stationed on the Bosphorus during the same week, and the ratio of sickness in it was 5 per cent.

At Smyrna, though the sickness does not amount to more than 3·78 per cent., four deaths have occurred out of a strength of 1894, which is within one of the mortality of the whole British Army in the Crimea.

Three deaths occurred in the General Hospital at Scutari, and one in the General Hospital at Renkioi, making a total mortality of 21 during the week from disease, and two from accidents out of Hospital.

In the Crimea the ratio of admission to strength has been . . . . 1·91 per cent.
Death to strength . . . . 0·02 ,,
Sick to well . . . . . 3·39 ,,

Assuming the force of all denominations to be (exclusive of officers) 70,000, the ratio of admissions to strength would be 2 per cent.; death to strength, 0·03; and sick to well, 4·92.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 9th inst.:—

BARNES, JOHN EDWARD, Clare, Suffolk.
CAPARN, JOHN, Enderby, Leicestershire.
FISHER, FREDERICK, Norwich.
HINGSTON, JOSEPH TORGELLES, Plymouth.
HUNTER, FREDERICK, Geelong, South Australia.
LAIMBEER, JAMES, Liverpool.
MERCHANT, RODERICK WALLER, British Guiana.
OLIVER, SAMUEL, Guildford-street, Russell-square.
STOKES, JOHN, Leintwardine, Herefordshire.
TURNEY, THOMAS HENRY, Ovendon, near Halifax.

Also on the 12th inst.:—

CLARE, WILLIAM, Higher Hurst, Ashton-under-Lyne.
DAVIS, WILLIAM FARQUHAR, H.E.I.Co.'s Service.
FRYER, ROBERT, Liverpool.
GREEN, SAMUEL HENRY, New Garratt, Manchester.
GREENWOOD, JAMES, Queen's-road, Dalston.
JOHNSON, WILLIAM FREELAND, Colchester.
KNAPP, GEO. FRED. A. Northwick, Worcestershire.
LYELL, PATRICK, Gardyne, Forfarshire.
OWEN, FRANCIS, Clapton Hungerford, Berkshire.
PIGG, CHARLES, Wokingham, Berkshire.
SPODE, JOSIAH, Van Diemen's Land.
THEOBALD, ROBERT MASTERS, Kentish Town.
WRAGG, CHRISTOPHER, Manchester.

LICENTIATES OF MIDWIFERY.—The following members of the Royal College of Surgeons having undergone the necessary examinations, were admitted Licentiates in Midwifery at the meeting of the Board, on the 13th instant:—

BATE, FREDERICK HENRY, Bridgewater; diploma of membership dated March 7, 1856.
DAVIES, OWEN, Cardigan; April 21, 1856.
FRYER, ROBERT, Liverpool; May 12, 1856.
HAYDEN, WILLIAM H., High Wycombe; March 28, 1856.
HODGES, HERBERT BURY, Clapham; April 18, 1856.
MAY, EDWARD H., Great Trinity-lane; March 14, 1856.
PARSONAGE, E., Wrexham, North Wales; Mar. 31, 1856.
SUFFIELD, CHARLES RALFORD, Droitwich; Nov. 16, 1856.
TAYLOR, ARTHUR, Kinselere, Hants; May 20, 1842.
WATERS, JOHN, Manchester; February 8, 1856.
WILLIAMS, P., Caermarthen, S. Wales; April 7, 1856.
WITTEN, EDWARD WALTER, Islington; March 28, 1856.

THE FELLOWSHIP.—The following gentlemen having undergone the necessary examinations, were admitted Fellows of the College at a meeting of the Council on the 15th inst.:—

ALLEN, JAMES, Bengal Army; diploma of membership dated March 17, 1856.
HUMPHRY, FREDERICK ABEL, Brighton; April 29, 1853.
MOSS, WILLIAM BOYD, Ceylon; April 1, 1853.
STONE, WILLIAM HENRY, Canterbury; Feb. 22, 1856.

Also on the 16th inst.:—

BOUCHIER, GEORGE CHARLES, Rathkeale, Cnty. Limerick.
CONDON, JAMES HUNT, Rathkeale, County Limerick.
DANIELL, GEORGE WILLIAMSON, Blandford, Dorset.
JONES, RICHARD, Carnarvon, North Wales.
MONKS, ELISHA HODKINSON, Wigan, Laneashire.
SERRY, EDWARD BACHELOR, Wittersham, Kent.
SHARKEY, THOMAS, Roscommon, Ireland.
SKINNER, SYLVESTER RUTHERFORD, Headcorn, Kent.
WESTON, EDWARD FRANCIS, Wellington, Shropshire.

Also, on the 19th inst.:—

JOHNSTON, ANDREW CHARLES, Rathmines, near Dublin.
JOHNSTON, JOHN, Dalkeith, near Edinburgh.
HAMPSON, ROGER, Bolton-le-Moors, Lancashire.
SEGAN, HENRY, Waterford.
SKENE, JAMES ALEXANDER, Aberdeen.
WALLEN, WILLIAM SOWERBY, Walker-pl, Rotherhithe.

APOTHECARIES' HALL.—Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 15, 1856:—

BENSON, JAMES FARISH, Aldersgate-street, London.
COLES, RICHARD, Cerne Abbas, Dorsetshire.
CROWTHER, JAMES, Rotherham.
KELSEY, ARTHUR, Horley, Surrey.
MORGAN, MOSES, London.
PLATT, JAMES, Dukinfield, Cheshire.
SHELSWELL, DANIEL, Sherrington, Banbury, Oxon.
STEVENS, DANIEL FREEMAN, St. Ives, Cornwall.
WALKER, ROBERT, Kendal, Westmoreland.

APPOINTMENTS.

DR. W. B. CARPENTER has been appointed to the Registrarship of the London University.

DR. G. N. EDWARDS has been appointed to the office of Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, in the room of Dr. Andrew Clark, recently resigned.

DEATH.

CURTIS.—May 11, at Brighton, Edward Curtis, Esq., Surgeon, formerly of Chiswick, aged 71.

WE are requested to announce that the widow of the late Edward Parry Beverly, Esq., (whose death we noticed in our Journal for March 29,) gave birth to a daughter, at Cecil Square, Margate, on the 14th inst.

APOTHECARIES' HALL.—On account of the public rejoicings, the examination will be postponed from Thursday, the 29th of May, to Friday, the 30th instant.

ST. BARTHOLOMEW'S HOSPITAL.—The Annual Dinner of the Governors and Medical Officers of St. Bartholomew's, took place on Wednesday, the 14th ult. Among those present were the President, Sir Charles Carroll, the Treasurer, Warden Almoners, etc., etc. To this Dinner, those of the Students who have, during the year, obtained Scholarships or prizes, are invited; and on the present occasion among these were the following gentlemen:—*Scholarships.*—James B. Barford, Ralph Goodall. *Prizes*—Edgar Barker, W. J. Beach, Alfred Carter, H. Cox, W. M. Crowfoot, Caleb Evans, C. J. Evans, R. M. Gover, S. H. Green, J. E. Gross, J. B. Jeaffreson, T. Eyton Jones, J. J. Muskett, C. Prentis, T. W. Sheppard, John Thomas, H. M. Tuckwell, W. B. Winkfield. The usual toasts were given, and responded to. The health of the Prizemen was proposed by the President, and eloquently replied to by Mr. Barford. The arrangements were in every respect of the most creditable order, and the evening passed off to the mutual gratification of all present.

ST. GEORGE'S HOSPITAL MEDICAL SCHOOL.—SESSION 1855-56.—*Scholarships*, Mr. Edward Harding and Mr. Thomas G. Henderson; *Sir Charles Clarke's Prize*, Mr. R. L. Bowles. *Anatomy:* Senior Class—Prize, Mr. George Bellamy; Certificate, Mr. A. D. Hart: Junior Class—Prize, Mr. Henry N. Hett. *Physiology:* Prize Mr. Henry H. Parry; Certificate, Mr. Ebenezer Nicholas. *Chemistry:* Prize, Mr. Walter Copestake; Certificate, Mr. George F. Cooper. *Practical Chemistry:* Prize, Mr. William Sutton: Certificates, Mr. R. L. Bowles, Mr. C. Hunter, Mr. H. Lewis. *Midwifery:* Prize, (*æquales*) Mr. R. L. Bowles, Mr. Charles Hunter; Certificates, Mr. William Sutton, Mr. Henry Lewis. *Botany:* Prize, Mr. Henry H. Parry; Certificate, Mr. Edward Walker. *Materia Medica:* Prize, Mr. Edward Harding; Certificates, Mr. Edgcombe Venning, Mr. Thomas G. Henderson. *Medical Jurisprudence:* Prize, Mr. William Sutton; Certificate, Mr. R. L. Bowles. *Practice of Physic:* Prize, Mr. Charles Hunter; Certificate, Mr. Thomas G. Henderson. *Surgery:* Prize, Mr. R. L. Bowles; Additional Prize, Mr. Charles Hunter; Certificate, Mr. M. Magrath.

UNIVERSITY OF DUBLIN.—At a meeting of the Board of Trinity College, held on Saturday, May 3, Dr. W. H. Harvey, Curator of the College Botanical Museum, and Professor of Botany to the Royal Dublin Society, was elected to the chair of Botany in the University, lately filled by Dr. Allman, now Professor of Natural History in the University of Edinburgh. Dr. Harvey has been for a considerable time, and is at present, on a Scientific tour in the Southern Hemisphere, and it has

consequently been arranged that the summer course of lectures shall be delivered in Trinity College, for this year, by Professor Melville, of Queen's College, Galway. Rich additions to our knowledge of the Botany of Australia, and other southern regions, may be expected as the result of the work in which Professor Harvey is just now engaged.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following constitute the Court of Examiners for the year ensuing:—Drs. Bellingham, Stapleton, Fleming, Tuohill, Byrne, Richardson, and Butcher. Dr. Hardy has been re-elected on the Midwifery Court of Examiners; two vacancies in which remain to be filled up.

BROMPTON CONSUMPTION HOSPITAL.—A bazaar in aid this institution will take place at the Toxopholite-gardens, in the Regent's-park, on the 3rd of June.

SOUTH AMERICA.—By the last advices we learn, that at Rio cholera and yellow fever were prevalent, especially among the shipping. At Bahia, cholera and yellow fever were prevalent; at Pernambuco both were on the decrease.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The first distribution of Prizes to the deserving scholars of this Establishment took place on Thursday last, under the auspices of the Bishop of Winchester, the Visitor; and Earl Manvers, the President. The Bishop having taken the chair, presented to the successful Students the books awarded them as their prizes, and afterwards addressed to the scholars a few words of kindly and encouraging counsel, and expressed his approval of the system and the apparent condition of the School, as well as his entire sympathy with the benevolent intentions of its founders. The company then dispersed themselves over the building and the playground, everything being opened to their inspection. At three o'clock a collation was provided in the dining-hall; the chair was occupied by Mr. Nathaniel Clifton, one of the Vice-Presidents; and after the repast, the toast of "Prosperity to the Royal Medical Benevolent College," and the healths of those most actively and officially concerned in promoting it, were duly honoured. The treasurer (Mr. Propert) spoke with much satisfaction of the extraordinary results which the Council, by the Divine blessing, had been able to achieve within about four years since the undertaking was commenced. He remarked that such an Institution as this ought to have existed a century ago. The members of almost every common trade had associated themselves to make similar provision for the necessities to which some of them might be reduced; but the Medical man, who laboured for all, and who exposed his own life to hourly danger, being called from his home at any time of the night, to attend cases of infectious disease, until this Institution was projected had no other refuge than the Workhouse if he became disabled and destitute. By this Institution a retirement would be afforded him, which he might accept as from his own friends and kindred, without any feeling of degradation. Much had been done, but much support would be required, to sustain the undertaking; and he was confident that the liberality of the public, as well as of the Profession, would not allow it to decline.

THE KARS OFFICERS.—In the House of Commons on Monday, Mr. Oliveira asked whether it was the intention of Her Majesty's Government to extend to his gallant comrades, Colonel Lake, Major Teesdale, Captain Thompson, and Doctor Sandwith, the liberality which prompted the award of a pension to General Sir William Williams. Lord Palmerston said that there was no precedent of going beyond the officer in command on these occasions, and the House would feel that it was desirable not to go beyond precedent with respect to them.

AMENDMENT OF PUBLIC HEALTH ACT.—On Tuesday, Mr. Cowper, on moving for leave to bring in a Bill to amend the Public Health Act, stated that his object was to remove certain ambiguities in the Act, and extend certain of the powers conferred on the Commissioners. It was found that in particular districts, where the Commissioners attempted to establish a comprehensive system of sewage, the necessary outfall was only to be obtained in a different district, whereas the Act as it stood at present did not permit them to go beyond their own. His Bill proposed to give the necessary powers for obtaining the proper outfall. He also proposed to increase the powers vested in the Commissioners for the disposal of the sewage, as also their borrowing powers. The motion was agreed to.

ROYAL MILITARY HOSPITAL AT SOUTHAMPTON.—The foundation-stone of this new Institution, was laid by Her Majesty on Monday, with great ceremony.

CHLOROFORM IN STRANGULATED HERNIA.—M. Malgaigne states he has tried the influence of chloroform in facilitating the reduction of strangulated hernia many times, but has not met with a single satisfactory result.—*Rev. Med. Chir.*

MORTALITY NOTABILIA.—In the week that ended on Saturday the deaths of 1094 persons, namely, 538 males and 556 females, were registered in London. In the corresponding weeks of ten years, 1846-55, the average number of deaths was 1020, which, if raised a tenth for increase of population, becomes 1122. It appears that the rate of mortality last week was slightly below the average. The deaths referred to diseases of the zymotic or epidemic character were last week 242, a number which differs little from the corrected average of corresponding weeks. But typhus, under which head cases of common fever are included, is at present more fatal than any other disease in the same class, and shows a disposition to increase. Fatal cases of diarrhœa were 15, which is the same as the average.

BIRTHS.—The births of 853 boys and 801 girls, 1654 children, were registered,—average 1497.

METEOROLOGY.—The mean height of the barometer in the week was 29·493 in. The barometer rose on Sunday (the 11th) to 29·79 in., the highest in the week. The mean temperature of the week was 51·2°, which is 0·9 below the average of the same week in 38 years (as determined by Mr. Glaisher). The warmest day was Sunday, when the thermometer in the shade rose to 72·0°, and that in the sun to 95°. The *lowest* reading was 42·9°, and occurred on Friday. The entire range of the week was therefore 29·1°. The mean daily temperature was below the average on every day except Sunday and Tuesday. The mean dew-point temperature was 45·6°, and the difference between this and the mean temperature of the air was 5.6°. The temperature of the water of the Thames ranged from 48·3°, the lowest on Sunday, to 55·9°, the *highest* on the last two days of the week; the mean of the week was 52·2°. On Sunday, Monday, and Friday, the wind blew from the north; at other times generally it blew from the south-west. Horizontal movement of air, 960 miles.

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, May* 17, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, May 17, 1856. Deaths of Persons. AT ALL AGES. Mean temp.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	51°2						51°9
ALL CAUSES	1094	542	145	181	169	47	1020·0
SPECIFIED CAUSES	1079	540	144	180	168	47	1013·3
DISEASES:—							
1. Zymotic Class	241	177	23	27	12	2	212·5
2. Dropsy, Cancer, and others of uncertain seat	42	8	3	12	16	3	44·0
3. Tubercular Class	213	93	64	48	7	1	200·0
4. Of Brain, Nerves, etc. ..	106	53	8	14	26	5	119·1
5. Of Heart, etc.	39	3	6	11	18	1	38·6
6. Of Respiratory Organs ..	178	89	13	34	33	9	159·8
7. Of Digestive Organs ..	74	37	6	15	15	1	65·0
8. Of Kidneys, etc.	13	..	2	5	4	2	11·7
9. Of Uterus; viz.—Puerperal Disease, etc. ..	9	..	5	2	1	1	8·2
10. Of Joints, Bones; viz.—Rheumatism, etc. ..	6	1	2	..	3	..	8·5
11. Of Skin, etc.	2	2	..	..	..	..	1·6
12. Malformations	4	4	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	23	22	..	..	1	..	26·1
14. Atrophy	32	21	..	2	9	..	25·7
15. Age	43	..	..	..	21	22	41·1
16. Sudden	11	6	1	4	..	..	10·7
17. Violence, Privation, etc...	43	24	11	6	2	..	37·0
CAUSES NOT SPECIFIED.. ..	15	2	1	1	1	..	6·7

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	4	7	7	3	7
North	490,396	6	2	5	8	3	16
Central ..	393,256	3	8	5	8	1	15
East.....	485,522	..	2	10	12	6	26
South	616,635	1	9	6	13	2	12
Total..	2,362,236	12	25	33	48	15	76

BOOKS RECEIVED.

A Handbook of Organic Chemistry. By Dr. Gregory. Fourth Edition. London: Walton and Maberly. 1856.

Lectures on the Diseases of Women. By Dr. Charles West. London: Churchill. 1856.

Memoir on the Cholera at Oxford in the Year 1854. By Dr. H. W. Acland London: Churchill and Parker. Oxford: Parker. 1856.

Chemistry, as applied and relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXII.

British Poisonous Plants. By Charles Johnson. London: Printed for the Proprietor, John E. Sowerby. 1856.

The Fern Allies. By Charles Johnson. London: Printed for the Proprietor, John E. Sowerby. 1856.

The Ferns of Great Britain. By Charles Johnson. London: John E. Sowerby. 1856.

Om Uterin-Deviationer. Af Dr. F. C. Faye. Christiania. 1856.

The Dublin Quarterly Journal of Medical Science. May. 1856.

Third Report of the Commissioners for the Exhibition of 1851. London: Eyre and Spottiswoode. 1856.

June; a Book for the Country in Summer-time. By H. T. Stainton. London: Longman and Co. 1856.

Fifth Annual Report of the Committee of Visitors of the Lunatic Asylum for the Borough of Birmingham.

Quarterly Return of the Births, Deaths, and Marriages registered in the Divisions, Counties, and Districts of Scotland. Quarter ending March, 1856.

On the Defects with reference to the Plan of Construction and Ventilation of most of our Hospitals. By John Roberton, Surgeon.

Swan's Medical Remembrancer. Fourth Edition, re-written and much enlarged by Jonathan Hutchinson. London: Churchill. 1856.

Lectures on Clinical Medicine. By Dr. John Hughes Bennett. Edinburgh: Sutherland and Knox. 1856.

Calculous Disease and its Consequences. By Dr. G. O. Rees. London: Longman and Co. 1856.

TO CORRESPONDENTS.

We regret that we are compelled to defer the insertion of Mr. Toynbee's next Lecture.

M.D., a Country Practitioner, having seen an advertisement in our columns announcing a vacancy in the Medical Staff of the Margaret-street Dispensary, writes to inquire of us how the vacancy has been occasioned. We understand that one of the Physicians, Dr. Hastings, has retired from the Charity. The other questions respecting the medicinal use of strychnia, arsenic, oxalic and fluoric acids, in the treatment of the cases at the Dispensary, we are unable to answer.

A Correspondent from Bury St. Edmund's has forwarded to us a circular sent to an aged clergyman, now deceased, by one who, we regret to find, is a member of our Profession. The object of the circular is obviously to puff off some book upon a disease which is of rare occurrence, but is made into a bugbear to frighten the timid. We very much regret that there is no law to punish such offenders against public and Professional morality.

Dr. Ransom is assured that his paper has not been forgotten. It will be put in type forthwith.

Mr. Henry Mayhew.—We have alluded to the subject in another part of our Journal.

J. T.—We cannot recommend any member of our Profession to ask for or to accept the degree of M.D. from the Archbishop of Canterbury, as we regard any degree obtained from that source as a mere relic of monkish absurdity. We understand that the degree costs £70; but whether this sum is given to the Archbishop, or to his Secretary, we do not know While we totally disapprove of such a degree, we cannot in any way countenance the assumption of the title by any one who has not paid the fees.

Juvenis, Poole, Dorsetshire.—The subjects for the ensuing Classical and Mathematical Examination at Apothecaries' Hall in July, are, in Greek, the Gospel of St. Matthew and the 4th Book of Homer's Iliad; in Latin, the 1st Book of the Odes of Horace and Cicero de Amicitiâ; in Mathematics, the 1st Book of Euclid, Algebra, and Common Arithmetic.

Cantabrigiensis.—It is quite true that the University of London receives an annual grant of £5000 per annum. No other University or Medical College in the kingdom is entirely independent of the fees received from Candidates. In some Universities, certain chairs are endowed with an annual stipend.

Mr. J. F. Lallemand.—We are aware that such remarks were made in the Periodical alluded to, but the whole tone of the article was so evidently exaggerated in order to suit the public taste, that we did not think it necessary to offer any serious refutation of the groundless calumnies against our Profession.

W. P.—The gentleman to whom you allude is a duly qualified practitioner.

Chemicus.—The College of Chemistry in Liverpool is recognized as a school of Practical Chemistry.

COMMUNICATIONS have been received from—

Mr. W. E. Image, Bury St. Edmunds; Dr. Andrew Smith; Mr. Robert Colgate; The Pharmaceutical Society; The Middlesex Hospital School of Medicine; Mr. F. C. Webb; Mr. Richard Griffin; Dr. R. H. Bakewell; Dubliniensis; Mr. Weedon Cooke; Mr. W. B. Kesteven; The Royal Medical Benevolent College; Dr. Charles Kidd; The Royal Institution; Dr. Ransom; Mr. Henry Mayhew; J. T.; Juvenis; Sir John Forbes; Mr. Robert Freeman; Mr. John Goodchild; Dr. W. L. Britton; Mr. A. W. Moore; Mr. C. O. Rowley; Mr. J. F. Lallemand; W. P.; Chemicus; A Correspondent; Cantabrigiensis; M.D.

APPOINTMENTS FOR THE WEEK.

May 24. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.
Royal College of Surgeons, 4 p.m.: Professor Hewett "On the Anatomy, Injuries, and Diseases of the Head."
Medical Society of London, 8 p.m.
Royal Institution, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."
Royal Botanic Society, 3¾ p.m.
Linnean Society, 8 p.m. *Anniversary.*

26. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

27. *Tuesday.*

Operations at Guy's, 1 p.m.
Royal Medical and Chirurgical Society, 8½ p.m.
Royal Institution, 3 p.m.: T. A. Malone, Esq., "On Photography."
Zoological Society, 9 p.m.
Meteorological Society, 7 p.m. *Anniversary.*

28. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.
Medical Society of London, 8½ p.m. *Lettsomian Lectures.*—Dr. Garrod "On the Nature and Treatment of Gout in its Latent and Developed Forms."
North London Medical Society, 8 p.m.: Dr. Russel Reynolds "On Cases Illustrating the Rational Treatment of Epilepsy."
Microscopical Society, 8 p.m.
Royal Society of Literature, 8½ p.m.

29. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.
Royal Society, 8½ p.m.
Royal Institution, 3 p.m.: Professor Tyndall "On Light."

30. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.
Poor-Law Medical Reform Association, 2 p.m. *Public Meeting,* Freemason's Hall.
Royal Institution, 8½ p.m.: Dr. Lyon Playfair "On the Chemical Principles involved in Agricultural Experiments."

Medical Times & Gazette.

SATURDAY, MAY 31.

THE TRIAL OF WILLIAM PALMER.

We this week present to our readers a detailed and Special Report of the evidence taken upon this most important trial, which commenced on Wednesday the 14th, and concluded on Tuesday the 27th of the present month. We have thought it proper to give at length the facts and opinions which throw light upon the Medical bearings of the case, briefly dismissing the other portions, which do not immediately fall within our province.

The Trial, as is now well known, has terminated in a verdict of Guilty against the prisoner, and we imagine that there are very few persons who will not concur in the justice of the decision. Had the results been otherwise—although, of course, we do not argue that conviction should follow, irrespective of strict justice—society would have been unprotected, and human life would have been unsafe; the weak and the unsuspecting would have been at the mercy of the crafty; and impunity for the robber might have been easily purchased by the secret assassination of the plundered victim. The knowledge that there exist poisons of so subtle and so pernicious a nature, that while a few grains are sufficient to destroy life, the fatal symptoms might closely resemble those of natural disease, would have circulated throughout the world; and would have offered to every murderer a ready means of gratifying his cruelty, and, at the same time, of concealing his crimes. The helplessness of childhood, the fondness of conjugal affection, the confidence of friendship, would all have conduced to facilitate the perpetration of murder, and the obscurity of the symptoms would have cast an effectual veil over the detection of the offence. But public morality has been vindicated; and the Poisoner, convicted of one crime and suspected of many more, has been consigned, after an elaborate investigation before an earthly tribunal, to the bar of Eternal Justice, and we leave him to the awful future which now awaits him, and to the pangs of his own conscience, while we advert to some of the points in the late memorable proceedings which more immediately concern our own Profession.

From information which has been in our possession, we have for some time entertained no doubt of the prisoner's guilt, but we have carefully abstained from expressing any opinion which might appear calculated to prejudice the case in the minds of the public; and we also felt it possible that some answer might be given to what we considered the damning testimony against the accused. The abundant opportunities possessed by the prisoner for preparing an effectual defence, afforded him ample power of rebutting the evidence for the prosecution, if that evidence had been at all fallacious; and we are bound to conclude, from the result, that there is substantially no defence at all. It is true that no person swore that the prisoner administered the fatal drug; nor in any case of poisoning can such evidence be fairly expected; but to the host of circumstantial facts, which appeared woven together like an inextricable net around the case, no valid denial or explanation has ever been offered.

On the 17th of November, 1855, various articles of food are administered by Palmer to Cook, and after their administration vomiting immediately ensues. A servant-woman, who tastes some broth on its way from Palmer to Cook, is also seized with vomiting. Barley-water which is given to Cook in Palmer's absence causes no vomiting, but Palmer returns and gives some arrow-root, and the vomiting is renewed. On Monday, the 19th, Palmer goes up to London, and Cook is better; Palmer returns to Rugeley about nine o'clock at night, buys three grains of strychnia at a shop in that town, and is in continual attendance upon Cook, who takes some pills. Palmer leaves Cook at about eleven o'clock, and at twelve the servants of the house are alarmed by Cook, who is found in a violent attack of spasmodic illness, the symptoms precisely resembling those which are known to ensue from the administration of strychnia. From this attack, however, Cook recovers, the dose probably not having been sufficiently large to extinguish life; and the next day he is comparatively well. On this day, Tuesday, between eleven and twelve o'clock, Palmer purchases six grains of strychnia, and is again in close attendance on Cook. Some pills are again taken by the latter; and a short time afterwards he is again seized with violent, and upon this occasion, fatal, convulsions. Mr. Bamford, an aged Medical gentleman, is induced by Palmer to sign a certificate that the deceased died of apoplexy; but Cook's step-father comes down to Rugeley and suspects foul play. Palmer is exceedingly anxious to bury the body, or at all events to close it up in a coffin, but an inquest and a post-mortem examination are demanded. The post-mortem examination developes no traces of natural disease, such as might fairly be expected in the case of a young man cut off in the prime of life; and the stomach is sent up to London for chemical investigation. It should be remarked that, whether from the agency of Palmer or otherwise, the stomach instead of being tied at both ends, as is usual, was cut from one end to the other, and its fluid contents allowed to escape; and Palmer endeavours to bribe the post-boy to upset the jar containing the viscera. The stomach is examined by Dr. Alfred Taylor, of London, and he finds abundant evidence of antimony, not only in that viscus, but in other parts of the body; but he finds no strychnia, although the symptoms during the life of the deceased pointed to the administration of that poison. Dr. Taylor, coupling the symptoms described with the fact of the purchase of the strychnia, gives it as his opinion that death was due to the last-named poison, although he had at first conjectured that antimony alone was the cause of death. After a long investigation at Rugeley, and several attempts to tamper with the Coroner on the part of Palmer, a Verdict of Wilful Murder is returned, and hence the late proceedings at the Central Criminal Court.

The facts above related are, we think, abundantly proved by the testimony just adduced for the prosecution. The Professional evidence, coming from men of such eminence as Sir Benjamin Brodie, Dr. Christison, Dr. Todd, and Mr. Curling,

was entirely corroborative of the opinion that death resulted from the poison of strychnia, and we have no hesitation in expressing our own opinion "in the face of the whole Profession," that while the symptoms in Cook's case are wholly reconcileable with the assumption that he died from strychnia poisoning, they are *wholly* reconcileable with no other supposition; for although it has been suggested that death was caused by apoplexy, epilepsy, idiopathic tetanus, epilepsy with tetanic complications, and (save the mark!) angina pectoris! yet no Medical authority would seriously argue that any of these diseases could produce exactly such symptoms as those observed, more especially when viewing the case in connexion with the unexplained possession of strychnia by the prisoner. It is quite true that the modifications of convulsive diseases are almost infinite, yet even in their most aggravated complications and their most aberrant varieties, they exhibit something like uniformity in their course, their origin, and their pathological accompaniments, and the tetanoid (not tetanic) convulsions caused by strychnia have long been known and described as peculiar to, and indeed characteristic of, that form of poisoning.

It is scarcely worth while, in a Medical Journal, to expose the absurdities into which the advocates for the prisoner allowed themselves to fall, in their zeal for their client. A few large papillæ, perhaps somewhat larger than usual, at the base of the tongue, were represented as morbid conditions of that organ; and Mr. Serjeant Shee actually represented to the Jury that the existence of *follicles* at the back of the tongue was an indication of disease. A small sore which had been healed for upwards of a year was assumed as the possible traumautic cause for the tetanic symptoms; and the presence of a few granules between the spinal dura mater and arachnoid (perhaps analogous to the *glandulæ Pacchioni* on the surface of the brain) was eagerly seized upon to explain the production of spinal arachnitis and consequent irritation.

The weakest part of the Medical evidence is undoubtedly to be found in the failure of the attempts to discover the presence of strychnia in the tissues examined after death. Whether Mr. Herapath or Dr. Letheby would have succeeded in developing the presence of the poison, under the very unfavourable circumstances in which the viscera were presented to Dr. Taylor, it is not for us to determine; but we must express our scepticism as to the easy detection of strychnia under similar difficulties; and, although Mr. Herapath expresses his belief that he can detect the *fifty-thousandth part of a grain* of the alkaloid, he qualifies his statement by adding, "*if unmixed with (other) organic matter.*" But whether or not Mr. Herapath, or Mr. Nunneley, or Dr. Letheby, could have discovered strychnia in a stomach slit up from end to end, and the fluid contents of which had escaped, it is certain that Dr. Taylor and Dr. Rees did not discover it, and as they are both men of acknowledged skill as analytical chemists, it is only fair to conclude that there were serious obstacles to the success of the examination. We agree with Dr. Christison and Dr. Taylor in receiving with caution the evidence of colours as tests for organic bodies, for the domains of Organic Chemistry are enlarging continually, and new properties are daily being attributed to new compounds, so that the presence of iridescent rings, produced in a suspected solution by the application of re-agents, can by no means be considered as an infallible proof of the presence of a particular poison when largely diluted or in mixture.

Another and very important scientific question has been raised in the course of this trial, and it is one on which we do not yet feel justified in offering a positive opinion. The question is whether the strychnia, after performing its deadly work in the stomach, and through the medium of that organ, inducing irritation of the spinal cord, is decomposed in the tissues of the body, and ceases to preserve its original constitution; or whether it is absorbed into the system as strychnia, and retains its individuality throughout all the solid and fluid components of the frame. Our own impression at present is, that strychnia, being an organic substance, composed of carbon, hydrogen, nitrogen, and oxygen, is decomposed in the tissues, and that it would be as vain to look for it after it has once disappeared from the stomach as it would be to search for quinine or morphia under similar circumstances, or indeed for bread or meat, or food of any kind. The metallic poisons stand in a totally different category; for whatever the reason may be, the metallic bases of the arsenical, the mercurial, and the antimonial poisons, are preserved in all the organs into which they have once entered, may be detected at long periods after their first administration, and, in fact, appear sometimes to exert a kind of preservative influence upon the textures with which they come in contact.

But we have no wish to dogmatize upon such a question, which is by no means one of mere speculation, but has a most important bearing upon future cases of a similar kind. If the strychnia is really undecomposed in its passage into the body, any portion of the solids or fluids will give evidences of its presence, supposing that the tests are not liable to fallacy; and it is to be hoped that the question which has thus been raised, will be settled by numerous experiments, in which the Medical and Chemical witnesses, both for the prosecution and the defence, may mutually assist one another.

We cannot help expressing our regret, in concluding our remarks for the present upon this subject, that the scientific witnesses should be arranged on different sides of the case, and that they should, in certain instances, exhibit so well-marked a bias to one or the other side, as to draw from the Bench the remark that they appeared rather in the character of advocates than of witnesses. We cannot but fear also that Professional rivalry may, though we hope it has not, have tinctured the sentiments of some of those who were examined on this occasion. It should always be remembered, that our Profession differs from that of the Bar, in seeking for Truth and not for Victory; and whether one side may win, or the other, the Medical witness should be wholly indifferent to the result. It will be seen, by reference to the late Trial, that many of the Medical witnesses have exhibited this desirable absence of bias; and several of those who were called for the defence might, so far as their opinions were concerned, have been called for the prosecution, and *vice versâ;* but we cannot but feel that some of the Medical evidence which was offered was not such as we, acting as honest writers, can conscientiously commend.

It is indeed to be desired that the whole machinery of our criminal jurisprudence should undergo revision. The appearance of the Attorney-General acting on behalf of the Crown in Palmer's trial may indicate the propriety of appointing a public prosecutor in similar cases. With respect to our Profession, when questions of science are brought forward in our Courts of Law, it would surely be better to appoint a Commission of Medical men of known eminence, skill, and integrity, as advisers of the Government, than to exhibit the spectacle of the Members of a learned and deliberative Profession brought forward on opposite sides to contradict or mar each other's testimony, and to sway the balance of the chances between acute and eloquent barristers, each anxious to secure a victory for their respective clients.

THE RUGELEY POISONING CASE.

TRIAL OF WILLIAM PALMER.

In our Number for May 17 we introduced the Trial by publishing the lucid statement of the Attorney-General in opening his case, and we now proceed to give our Special Reporters' Notes of

THE EVIDENCE.

Ishmael Fisher examined by Mr. Edwin James—I am a wine-merchant, and am in the habit of attending races and betting upon them. I knew the deceased, and had done so for two years. I was at the Shrewsbury races in 1855. A mare named Polestar won the Shrewsbury handicap at those races on Tuesday, the 13th November. This mare belonged to the deceased. I saw him on the day of the race, and he appeared quite well. On the following day, in the evening, I was at the Raven Hotel, Shrewsbury. The prisoner and deceased were staying at the same hotel, and occupied an adjoining room to mine. At about eleven o'clock at night I saw the prisoner and the deceased, and a gentleman named Myatt, in the sitting-room occupied by the deceased and the prisoner. They were drinking grog. The deceased had some brandy-and-water, before him. He asked me to sit down, and I did so. Cook asked the prisoner to have some more brandy-and-water, and he said he would not have any more until he had drunk his. Cook then took up his glass and drank all the liquor that was in it, and almost within a minute, he exclaimed, "There is something in it—it burns my throat dreadfully." Upon his saying this, Palmer took up the glass, and sipped up what remained in the glass, and said there was nothing in it. There was a very small quantity of liquor in the glass when the prisoner took it up. At this time a person named Reed, who also attends races, came into the room, and the prisoner handed the glass to him, and asked if he thought there was anything in it, and handed it to me also, and we said there was nothing we could recognize, as the glass was so empty. I said, however, that I thought there was rather a strong scent upon it, but I could not detect anything but brandy. Cook went out of the room, and when he returned he called me out. He was absent about ten minutes. I went with him into my sitting-room. He appeared very ill, and he told me that he had been very sick, and he asked me to take his money. He at the same time said that he thought that Palmer had been dosing him. He gave me over £700. It was all in bank notes. He did not say what I was to do with the money. The deceased was very sick again after he had given me the money, and left my room, and when he came back, he again told me how he had been suffering from sickness, and asked me to go with him to his bedroom, and I did so. Another person, named Jones, went with us, and the deceased vomited violently in his bedroom in our presence. He was so ill that I advised him to send for a Medical gentleman named Gibson, and he attended upon the deceased, and gave him some medicine. The deceased was so ill that the doctor was sent for a second time, but about two o'clock in the morning he appeared to be more composed, and I left. I and Mr. Jones administered to the deceased the medicine that was sent. On the following morning I saw the prisoner in my sitting-room. He told me that Cook had been stating that he had been putting something in his brandy over night, and he said that he never played such tricks with people, and he added that Cook was drunk. I should say that deceased was certainly not drunk when I saw him, and there was nothing about him approaching to drunkenness. The deceased appeared very ill when I saw him that morning, but a good deal better than on the previous night, and I returned him his money. I afterwards saw him on the racecourse, and he then looked very ill.

Cross-examined—I was aware the prisoner and the deceased were intimately connected in racing matters; but I am not aware that they were partners, or that they owned horses jointly. They were on very intimate terms, and generally stopped at the same hotels. I saw Cook after his mare had won, and he appeared very much elated and gratified. I am a pretty good judge of brandy, and I stated that I could not detect anything particular in the smell of the deceased's glass, there was so little in it that it was very difficult to form any positive opinion upon the subject. I was not aware that a great many people connected with the races were very ill at Shrewsbury. On the day of the races it was very wet under foot, and it was cold and damp two or three days afterwards.

Mr. S. Gibson said—I am assistant to Mr. Heathcote, surgeon, at Shrewsbury. I remember being sent for on the 14th November to the Raven Hotel, at Shrewsbury, and I saw the deceased in his bedroom. He complained of pains in his stomach and heat in his throat, and he said he thought he had been poisoned. I felt his pulse, and found it was about 90. His tongue was perfectly clean. The abdomen very much distended. I administered an emetic, and sent the waitress for some warm water, and the deceased said he would make himself sick with the handle of a tooth-brush. He drank all the water, and vomited, and the water returned perfectly clean. I then went home, and sent the deceased two pills and a draught. The pills were composed of rhubarb and calomel, and the draught consisted of rhubarb, magnesia, and ammonia.

Cross-examined—I went to work with the deceased as if he was poisoned. There was nothing peculiar in the matter that he vomited. He appeared a little excited by drink, but knew perfectly well what he was about. I consider that his brain was certainly stimulated by brandy-and-water. I thought that the warm water was likely to relieve his stomach.

Elizabeth Mills said—I was chambermaid at the Talbot Arms, at Rugeley, in November last. The prisoner lived at Rugeley, and was in the habit of coming to the Talbot Arms. I knew the deceased. He came to our hotel on the 15th of November, between nine and ten at night. The prisoner came with him in a fly. He appeared to be poorly, and he said he had been ill at Shrewsbury. He went to bed about half-past ten o'clock, and on the following morning he went out about one o'clock, and he still appeared to be poorly. He returned to the inn about ten o'clock at night, and went to bed in half-an-hour or so, and he then told me that he had been dining at Mr. Palmer's, and he said that he felt no worse. The deceased was quite sober, and he asked for an extra piece of candle to read by. The prisoner lived opposite the Talbot Arms. He came to see the deceased on the following morning, and he asked me for a cup of coffee for him, and I procured one, and I think I gave it to the deceased, and left the room. I did not see him drink the coffee, but when I went into the room shortly afterwards I saw that it had been vomited in the interval by the side of the bed. I did not observe a jug of toast-and-water in the bedroom, but a jug that did not belong to the inn was sent down from the bedroom at night for me to make some fresh toast-and-water in. The prisoner was in deceased's bedroom four or five times on this day, and I heard him tell Mr. Cook that he would send him over some broth. I afterwards saw some broth in the kitchen, which I knew had not been made in the Talbot Arms, and the waiter took this broth to the deceased's bedroom. I saw the prisoner after this, and he asked me if Mr. Cook had had his broth, and the waitress said she had taken it to him, but he refused to take it, and said that it would not stay on his stomach. The prisoner then told me to fetch the broth, as Mr. Cook must have it, and I did so, and left it in the deceased's bedroom, and shortly afterwards I saw that it had been vomited. The same morning some barley water was made for the deceased, and also some arrowroot, but I cannot say whether they remained on his stomach or not. Mr. Bamford, the doctor, was called in after this. On the Sunday after the deceased came to the Talbot Arms I saw him in his bedroom about eight o'clock in the morning, and he said he had slept well since twelve o'clock, and he felt pretty comfortable. A large breakfast cup of broth was brought from the prisoner's house between twelve and one o'clock on the Sunday, and I took it up to the deceased's bedroom. I tasted the broth, and very soon afterwards I was sick. I drank about two tablespoonfuls. I vomited violently all the afternoon, and was obliged to go to bed. I was quite well up to the time of my drinking the broth. I saw the deceased on Sunday evening, and he seemed in good spirits and not to be any worse. I saw the deceased on the Monday morning between seven and eight o'clock, when I took him a cup of coffee for his breakfast. He did not vomit the coffee. Palmer had seen him before this, but he did not come again till ten o'clock at night. The deceased

got up about one o'clock, and he shaved and dressed himself, and appeared a great deal better, but said that he was exceedingly weak. Ashmall, the jockey, came to see him on the Monday, and also Mr. Saunders, the trainer. Soon after one o'clock the deceased took some arrowroot, and it remained on his stomach. The deceased went to bed at four o'clock, and between nine and ten the prisoner went into his room, and I left him there. Some pills were sent by Mr. Bamford for the deceased about eight o'clock, and I took them into his room and placed them on the dressing-table, and they were there when the prisoner went into the room. I went to bed between ten and eleven, and I was called up about twelve. I then heard violent screams from the deceased's bedroom, and upon entering it I saw the deceased sitting up in bed, and he desired me to fetch the prisoner directly. I told him he had been sent for, and I then walked to the bedside and found one of the pillows was upon the floor. I picked it up, and asked Mr. Cook if he would lay his head down. At this time he was beating the bedclothes apparently in great agony, and he told me he could not lie down, and he should be suffocated if he did, and he then, in a loud tone, asked me again to send for Mr. Palmer. There was a sort of jumping or jerking about his head, neck, and body all this time, and his breathing was very much affected. He screamed three or four times while I was in the room, and twice he called out "Murder!" He asked me to rub one of his hands, and I found it quite stiff. It was the left hand. The fingers were all stretched out, and there was no motion in them, and they twitched while I was rubbing the hand. Palmer came into the room while this was going on, and the deceased recognized him, and said, "Oh, Palmer!" or "Oh, doctor, I shall die!" The prisoner replied, "Oh, my lad, you won't;" and, after remaining a minute or two in the room, he told me to stay there, and went out. He returned in a very few minutes, and then he produced some pills, and he gave the deceased a draught in a wine-glass after he had given him the pills. Cook said that the pills stuck in his throat, and the prisoner told me to give him some toast and water, and I did so, in a teaspoon. His head and body continued jerking, and he seized the spoon fast between his teeth, and seemed to bite it very hard. The deceased shortly afterwards swallowed the toast and water and the pills, and the prisoner then handed him the draught. It had a thick, heavy appearance. The deceased snapped at the glass in the same way he did at the spoon, and he appeared unable to control himself. He swallowed the draught, but vomited it immediately afterwards, and it appeared to me to smell like opium. The prisoner then made the remark that he hoped the pills had stayed, and he searched the utensil into which the deceased had vomited with a quill, and said that he could not find them, and he told me to take the utensil away and empty it carefully, and I did so, but could not see any trace of the pills. After this, the deceased seemed a little more easy. The attack lasted altogether about half-an-hour, and during the whole of the time he was quite conscious. When he was recovered, he asked the prisoner to feel how his heart beat, and Palmer went to his bedside, and put either his hand or the side of his face to his heart, and he said it was all right. I left the deceased about three o'clock in the morning, and at this time the prisoner was sitting in the easy chair, and I believe he was asleep. About six o'clock the same morning I saw the deceased again, and he told me that Mr. Palmer had left him about a quarter past five o'clock. I asked him how he was, and he replied that he was no worse, and he then asked me if I had ever seen any one in such agony as he was the night before, and I told him I never had. He then said, he was sure I should never like to see any one in such agony again, and I inquired what he thought was the cause. He replied that it was through some pills that Palmer had given him about half-past ten. The deceased was quite composed and quiet at this time, and there was no jerking or convulsions about him, but his eyes looked very wild. About twelve o'clock the deceased desired me to send the boots over to Mr. Palmer to know whether he might have a cup of coffee. A message was brought back that he might, and that Mr. Palmer would be over immediately. When I took up the coffee the prisoner was in the room, and I gave him the coffee, and he tasted it, to see that it was not too strong. Mr. Jones came to the inn about three o'clock, and I saw him in the deceased's room, and the prisoner after this told me that Cook had vomited the coffee. I saw Cook several times after this, and he appeared in very good spirits, and talked about getting up the next morning, and wished the barber to be sent for to shave him. I did not see the deceased later than half-past ten o'clock on the Tuesday night, and the prisoner was then in his bedroom, and I gave him some toast-and-water for the deceased, and the prisoner said he did not want anything more. I sat up in the kitchen on purpose to see how Mr. Cook went on, and I heard the bell of Mr. Cook's room ring violently about ten minutes before twelve o'clock, and I went up immediately. Mr. Jones slept in another bed in deceased's room. I found the deceased sitting up, and Mr. Jones had his arm round his shoulders, apparently supporting him. The deceased, when he saw me, told me to fetch Mr. Palmer directly, and I went over to his house and rang the surgery-bell, and the prisoner came to the window almost in an instant, and he opened a small casement, and I told him to come over to Mr. Cook directly, as he was in much the same state as he was the night before. The prisoner made some reply, and I went back to the Talbot Arms, and in a minute or two the prisoner came into Mr. Cook's room, and the first thing he said was that he did not think he had ever dressed so quickly in his life. At this time Mr. Jones was still supporting the deceased. I went out of the bedroom and remained upon the landing about a minute or two, when the prisoner came out, and I observed to him that the deceased appeared in the same state he was in the night before, and Palmer replied that he was not so ill by a fiftieth part. He then went to his own house and returned in a very short time, and went into the deceased's bedroom. I then heard the deceased ask to be turned over on his right side, and very shortly after this I heard that he was dead. I saw the prisoner feeling the deceased's pulse, and he said to Mr. Jones, "The pulse is gone." Mr. Jones put his face to the heart of the deceased, and when he had done so, he lifted up both his hands, but did not speak. The prisoner then told me to fetch Mr. Bamford, and he arrived very soon afterwards, and when he came down he told me that Mr. Cook was dead, and that he was dead when he arrived. I was told after this that the prisoner wanted me, and I went into the deceased's bedroom. The prisoner was there alone. I said to him, "Palmer: it is not possible that Mr. Cook is dead?" and he replied, "Yes; he is dead." He then asked me who I thought would come to lay him out, and I mentioned some women whom I thought he knew, and he said they were just the women, and he told me to fetch them. While Mr. Cook was staying at the Talbot Arms I saw a book, which I supposed to be his betting-book. He had it with him when he stopped at the Talbot Arms before, on his way to Liverpool races. I saw this book in the deceased's bedroom the night before he died; it was on the dressing-table. The prisoner was in the bedroom the same night, and I never saw the book again. I have searched for it, but cannot find it anywhere. About ten minutes after the deceased had died, and while Mr. Jones was out of the room, I saw the prisoner in the act of searching the pockets of Mr. Cook's coat. I also saw him search under the pillow and bolster. Before Mr. Cook died I saw some letters lying on the mantelpiece, but I have never seen them since.

Cross-examined by Serjeant Shee:—

I had been engaged at the Talbot Arms for about two years previous to Mr. Cook's death. I had seen him several times at the inn. I never heard him complain of any ailment, except of his throat. He did not complain frequently, but I have heard him say casually that he had a sore throat, and he used to gargle it. I saw only one bottle of gargle. Dr. Thirlby used to attend him for his throat. I never observed any sores about his mouth, or noticed that he had any difficulty in swallowing. I have observed that his tongue appeared loaded or foul, but nothing more. I cannot say how long it was before his death that he complained of sore throat, but it was certainly more than a month. He had a slight cough. After he came from Shrewsbury he complained of illness immediately. I can read. I do not remember reading the case of Mrs. Dove. I heard it spoken of by many persons. I never heard Mr. Stevens, or Mr. Gardiner, or Mr. Hatton mention it. I was not told what the symptoms of Mrs Dove were, I only knew that it was a strychnine case. The symptoms of strychnine have never been mentioned to me. I mentioned the word "twitching" first to the coroner; I don't know whether I used that word, but it was a word to the

same effect. I used it before I came to London, but I don't know to whom. I have used it in my mother's house, and I told her the symptoms of Cook. I cannot remember when first I used the word "jerking;" the term was not mentioned to me. I don't remember being asked if there was not jerking or twitching. On the Sunday some broth was brought in, and I took it to Cook's bedroom, and drank about two table-spoonfuls, and vomited afterwards. I did not mention it to the coroner. It did not occur to me then; it occurred to me three days after. I said before the coroner that I tasted the broth and thought it very good. I did not say anything about the sickness. It never occurred to me that it was the broth, at the time, that made me sick. I went to bed in consequence of the vomiting; I am not subject to sickness. I have a bilious attack sometimes, but I never had such a violent sickness as that was. I could not account for it at the time. The sickness came on about half-an-hour after I had taken the broth. On Saturday morning Mr. Cook had coffee for breakfast; I did not hear him express a wish for it. I never knew him take it in bed before. I don't know whether Palmer ordered it or not. If I stated yesterday, that Palmer ordered it, I have no doubt it was so; I believe it was so. If I said so yesterday, it was no doubt correct. I cannot remember so well to-day. I don't know whether I said that Cook vomited immediately on taking the coffee, or that I had not seen Palmer up to the time when I gave Cook the coffee. I saw a pillbox on Monday night, and placed it on the dressing-table, and I saw Palmer in Cook's room between nine and ten o'clock. I don't know whether I said that before the coroner. Perhaps I was not asked the question. I only stated what I was asked. I swear Palmer was there between nine and ten o'clock. He brought a jar of jelly with him. I cannot remember how long after nine he was there. I think when he came it was nearer ten than nine. I cannot tell to a quarter of an hour. I don't recollect whether Palmer was there at half past ten o'clock. I do not know when Cook took the pills. On Tuesday morning, about six o'clock, I asked him what he thought the cause of his illness was. He was then composed and comfortable. He said, "The pills which Palmer gave me at half past ten." I did not state that before the coroner. I do not remember saying before the coroner that Cook asked to be raised or he would be suffocated. I said his body and neck were moving constantly. I do not know whether I used the word "jerking." I said he would raise himself up and throw himself back again; I said he was jumping. I said it was difficult for him to speak, and that he was short of breath. I did not tell the coroner that he thanked me for rubbing his hands. I do not remember saying that he "twitched" when I was rubbing his hands. I did not tell the coroner that Cook asked for toast-and-water to be given him with a spoon. I did not say that he snapped at the spoon, so that it was difficult to get it out of his mouth. I do not remember saying that his head and neck moved forward together, and that in that way he got the spoon. I answered all the questions that the coroner asked me. Dr. Taylor I think was present when I was first examined. I was not recalled for the purpose of describing the symptoms in Dr. Taylor's presence. I was not examined about the symptoms on any occasion when I knew the Medical gentlemen were present. On the night when I rang the bell for Palmer, he had a brown cap on. That was on the Monday. I do not remember what kind of cap he had on the Tuesday; he then had on a plaid dressing gown. I do not know whether, when he came across, he had his night-shirt or his day-shirt on; or whether he wore slippers or boots. When I saw Palmer searching Cook's pockets, Jones had left the room. He had the coat in his hand when he looked under the pillow. I remember the room in which Cook's body was examined.

The witness was then re-examined by Mr. James:—I do not know how long I was under examination before the coroner. I was not asked to describe all the symptoms. The coroner himself put the questions to me, and the clerk wrote down the answers. I answered only the questions that were asked.

By Lord Campbell—The Coroner asked me if the broth had any effect upon me, and I said, "not that I was aware of."

Mr. James—What brought it to your mind afterwards?

Witness—I do not know. I think some one else mentioned it first; perhaps a week after the examination. I think it was one of my fellow-servants in the house that mentioned it. It is a fact that I vomited and went to bed, and Lavinia Barnes was aware of it. Cook said, "The pills Palmer gave me at half-past ten made me sick." I know Dr. Collier; he is now in Court. He said he was for the Crown, and he asked me questions about the inquest and the death of Mr. Cook. It was about three weeks or more ago. He wrote down what I said, and took the paper away. He did not ask me to sign the paper; I do not know whether he read it over. There were other persons present, but I do not know who they were. I never can bear tartar emetic. The broth had no taste beyond that of the vegetables in it. I have seen Cook gargle his throat. He got the gargle from Thirlby.

Serjeant Shee requested the Bench to ask the witness whether Dr. Collier did not say, "I am not for the Crown, nor for the defence, but only for the truth."

Witness was asked the question, and replied, that Dr. Collier said he was for the Crown, and that he only wanted the truth without favour or affection.

Mr. James Gardiner, Attorney, was then examined by the Attorney-General, and stated, during the examination before the Coroner he had occasion to complain that some of the answers of the witnesses were not taken down by the clerk, but that he did not remember the complaint being especially made during the examination of Mills.

Mrs. Anne Brook, a lady in the habit of attending and betting at races, was next examined, and stated, among other things, that when she was at Shrewsbury, on Wednesday, November 14, at the Raven Hotel, she saw Palmer stirring up something like water in a glass, and holding it to the light, in order to examine it, he took the glass away, and returned with it full of brandy-and-water. She also said, that several racing men were ill at Shrewsbury on that day, and that some of her own company were affected by vomiting and purging, which was attributed by some persons to the water at Shrewsbury having been poisoned. She thought Palmer was mixing a cooling draught. She drank the brandy-and-water with which he returned, and experienced no ill effects from it.

Lavinia Barnes, waitress at the Talbot Arms, was next examined. She stated that she took some broth to Cook, and he said he was too sick to take it. Palmer said, "He must have it;" and it was afterwards taken to Cook by Mills. That same afternoon Mills was taken with violent vomiting, and went to bed. The broth for Cook was in a "sick cup," with two handles: it did not belong to the hotel, but she could not say whether the broth was made in the hotel. The cup went back to Palmer's. After Palmer had left on the Monday, Mr. Cook's bell rang violently. Witness found him very ill, screaming violently, and calling out that he was suffocated. Palmer afterwards came over, and told Cook not to be alarmed. Cook drank a darkish mixture out of a glass; he bit the glass, and threw up the mixture. On Tuesday Cook seemed better, but he was taken ill again at night. Palmer came over dressed in his usual way, with a black coat and a cap on. Witness remained out on the landing while Palmer was in the room, and, on his coming out, he told her that Cook was not a fiftieth part so bad as he was on the Tuesday. She afterwards went into the room, and heard Cook ask to be turned over. He soon afterwards died. Witness said, "Surely he can't be dead;" and Palmer replied, "He is, and I knew he would be." Witness corroborated Mills's evidence as to Palmer's searching for papers, etc.

Ann Rowley, charwoman at Rugeley, and Charles Horley, gardener, gave evidence of their having carried some broth to Cook, at the Talbot Arms, by Palmer's direction.

Mrs. Sarah Bond, housekeeper at the hotel, said: I saw Cook at eight o'clock on Sunday; he was then in bed. He said he had been very poorly, but was better. I saw Palmer the same night, very soon after he came out of Cook's room. He said he thought Cook was better. I asked Palmer if he did not think some one should sleep with him that night, and he replied, that he would rather not, as Cook was much better. I saw Palmer on the Monday, shortly before seven, when he came into the kitchen. He again said Cook was better, and he took a cup of coffee, which I made, and carried it to him. I saw Cook in the evening sitting up in the bed; he seemed disappointed. Palmer left the room, and came back again. When he came back, I heard Cook vomiting. Cook told Palmer he should die; but Palmer cheered him up, and said he would do all he could do to prevent it. I did not see Cook again till the next day, Tuesday, between three and four, when

Mr. Jones came. I took him some jelly. Between five and six, he said he thought he should die, but I thought he seemed better.

Mr. W. H. Jones, Surgeon, of Lutterworth, said—I have been in practice fifteen years, and was intimately acquainted with Cook. He stopped occasionally at my house. I have been intimate with him five years. He was 28 when he died. I have known Palmer about twelve months. I have prescribed for Cook professionally. His health was generally pretty good; his constitution was not very robust. In general he was a man of active habits; he hunted, and played cricket. I remember the Shrewsbury races in November. I dined with Cook there, and with several of his friends, at the Raven Hotel. Cook's horse having won, there was a little extra champagne. In the evening, Cook accompanied me round the town.

The Attorney-General—Was Cook the worse for liquor?

Witness—Certainly not.

The Attorney-General—Was there anything to affect his health?

Witness—Nothing at all. He appeared in his usual health. On the Monday following, I received a letter from Palmer, telling me that Cook was taken ill with a severe bilious attack, accompanied with diarrhœa, and requesting me to come and see him as soon as possible. I was then very unwell; but the next day I went to Rugeley, and visited Cook in his room, about half-past three o'clock. He expressed himself as being very comfortable, but said he had been ill at Shrewsbury. He said he had been obliged to call in a Medical man, but did not tell me the symptoms. After this Palmer came, and I examined Cook in his presence. His pulse was natural, and his tongue looked clean. I said, "This is hardly the tongue of a bilious-diarrhœa attack." Palmer said, "You should have seen it before." I did not then prescribe for Cook, but I visited him several times in the course of the afternoon. He had changed for the better; his spirits were more elevated, and he was evidently improving. He vomited during the afternoon, after I gave him some toast-and-water, which was in his room, but there was no diarrhœa. In the evening, Mr. Bamford came about seven o'clock. Palmer said Mr. Bamford had been attending him. When Mr. Bamford came, he expressed his opinion that Cook had gone on satisfactorily. Something was said about what he was to have, and Cook objected to the pills he had taken on the previous night. Palmer was present all the time. Cook said the pills made him ill. Palmer and Mr. Bamford and myself consulted on the landing outside. Palmer proposed that Mr. Bamford should make up some morphia pills, as before; at the same time requesting me not to mention to Cook what the pills contained, as he objected so much to morphia. Mr. Bamford agreed, and left. Palmer and I went back to Cook's room. He appeared very comfortable. There was no more vomiting or diarrhœa that I observed; there was a natural motion of the bowels.

The Attorney-General—Did you observe any bilious symptoms about him?

Witness—None whatever. He did not appear to have suffered from a bilious attack. Palmer left at eight o'clock to go to his own house. I went with him and remained half-an-hour, and then returned to Cook. I next saw Palmer in Cook's room about eleven o'clock. He brought a box of pills with him which he opened in my presence, and showed me the direction, which was written on the paper round the box. He directed my attention to the handwriting, which was very good. Cook protested against taking the pills on the ground that they made him ill the night before. Palmer, however, requested him several times to take them, and at length Cook complied. The moment he had taken the pills he vomited. I examined the utensil at Palmer's request, to see if the pills had been ejected; but saw nothing but toast-and-water. Toast-and-water was lying at his bedside. The pills could not have occasioned the vomiting; there would be no time for them to act. After the vomiting Cook lay down and appeared to be quiet. Before Palmer came Cook had expressed himself as better. He had got out of bed, and sat up in a chair. His spirits were very good that evening; he was quite jocose, and talked of what he should do in the winter. After he had taken the pills, I went down stairs and returned about twelve o'clock. It was arranged, at his request, that I should sleep in his room that night. When I went to bed he was quite as well as he had been during the evening, but rather sleepy. There was nothing to excite apprehension about him. I had been in bed about ten minutes when he suddenly started up, and called out, "Dear Doctor, get up; I am going to be ill. Ring the bell and send for Palmer." I rang the bell, and sent the chambermaid for Palmer. Cook asked me to give him something to relieve him. I said, "Palmer will be here directly." He was sitting up in bed; I observed nothing particular in his expression, because the room was all but dark. He asked me to rub the neck, which I did. I rubbed the back part of the neck. He started up in my arms. There was a stiffness about the muscles of his neck. In two or three minutes after the chambermaid left, Palmer came in, and said, "I never dressed so quickly in my life." I did not observe how he was dressed. He brought two pills, which he said were ammonia pills. Cook swallowed them. Directly he had done so he uttered a loud scream, threw himself back on the bed, and was dreadfully convulsed. That could not have been the result of the action of the pills. He said, "Raise me up, or I shall be suffocated." The convulsions lasted about five or ten minutes. He called out to be raised just as the convulsions were setting in. The convulsions extended over all the muscular fibres; and there was a violent contraction of the muscles of the body and a stiffening of the limbs. I endeavoured to raise him, with the assistance of Palmer, but found it impossible in consequence of the rigidity of the limbs. He then asked me to turn him over; he was then quite sensible. I turned him over, and listened to the action of the heart, and found it gradually weaken. I asked Palmer to get some spirits of ammonia as a stimulant to revive the action of the heart. Palmer went to his house and fetched a bottle. He was gone about two or three minutes. When he returned the pulsations of Cook's heart were gradually ceasing, and at length became almost extinct. He died very quietly shortly after Palmer arrived. From the time he called me till his death, about ten minutes or a quarter of an hour elapsed. I think tetanus was the proximate cause of his death. Tetanus is commonly known as locked-jaw; it is a spasmodic affection of the whole of the muscles of the body. It causes death by stopping the action of the heart and respiration.

The Attorney-General—Is it the spasmodic contraction of the respiratory muscles that causes suffocation?

Witness—It is. When he died he was still lying on his side. I did not turn the body on its back. The room was very dark, and I did not see the appearance of the body. Both hands were clenched, particularly that which I held in mine. The clenching of the hand took place immediately on the attack coming on, and when he threw himself backward on the bed. While rubbing his neck I did not see his hands clenched. His head was quite bent back after death, in an unnatural position, by spasmodic action. The body was twisted back, completely bowed.

To Lord Campbell—I observed this appearance on his throwing himself back.

To the Attorney-General—If I had placed the body on its back at that period it would have rested on its head and heels. The jaw was also affected by spasmodic action. Palmer remained about half-an-hour or an hour after Cook's death. I went for the women to lay out the body, and on my return I found Palmer in the room with Cook's coat in his hand. He said I, being Cook's nearest friend, had better take possession of the valuables. I did so. I took possession of his purse and watch; but I saw no books, letters, or bank-notes.

Lord Campbell—When you consulted with the other Medical men, did you say anything about the symptoms exhibited by Cook the night before?

Witness—I did not.

Cross-examined by Serjeant Shee—I have been in practice fifteen years, and pursued my profession as a means of living. I am a licentiate of the Apothecaries' Company. When a young man I endeavoured to qualify myself for the practice of my profession. Cook's health was in general pretty good. I knew he had been under Dr. Savage's treatment for some years, and that he had also treated himself. I knew he had a sore throat, but it was not an extreme case. The back part of the tongue was ulcerated, but did not prevent swallowing. I know he had frequently applied caustic to his tongue, but he had ceased to do so two months prior to his death. Afterwards he did not continue to complain of his throat or tongue. I never heard him express apprehensions about spots appearing on the body, or about secondary symptoms from venereal

disease. His habits were generally correct. He occasionally indulged himself. I do not know that he had a chancre at the time of his death. Twelve months ago he had. Cook was very anxious about the race, and was highly elated after the mare had won; so much so, that he could hardly speak for two or three minutes. He was a temperate man, on the whole. On the evening he objected to take the pills he said Dr. Savage had recommended him not to take calomel or opium. The effect of morphia would be soothing. Opium would constipate the bowels. On the evening of Cook's death Cook said to Palmer, "Give me the same remedy that you gave me last night." I had seen cases of tetanus before. I spoke both of tetanus and convulsions at the inquest. I said I could not tell the cause, but I imagined it was from over-excitement. I was very much taken by surprise. I do not recollect having stated that he died of epilepsy. Mr. Bamford said it was apoplexy. I said it was more like epilepsy than apoplexy. I cannot say that there are forms of convulsions in which the mind retains its consciousness.

Re-examined—I never saw but one case of tetanus, and that was from a wound. In that case the patient died in three days. I have seen cases of epilepsy; but there is no such thing as spasms or rigidity of the muscles in epileptic fits. I am quite satisfied Cook did not die of apoplexy. In epileptic fits the consciousness is lost.

Dr. Savage, of Gloucester-place, was next examined by the Attorney-General—I had known Cook for four years before his death. He was in the habit of consulting me. He was not a robust man; but was not delicate. I examined his chest, because he complained. In the spring of 1855 he came to me about his old complaint, indigestion. He had two white spots on his body, and two ulcers on his tongue, which I found to correspond with two bad teeth. He said he had been under a mild mercurial course. He imagined that the spots were mercurial symptoms. I thought they were not. I think he had been taking mercury a day or two before. I recommended its discontinuance, and gave him a tonic containing quinine, and an aperient containing cream of tartar, sulphur, and magnesia. I did not at any time give him antimony. Under the treatment the sores became quite well by the end of May. I saw him frequently in June. I was anxious to see exactly what was his complaint; and whenever he came I examined him carefully. He never had ulceration of the throat. One of the tonsils was affected at one time. I saw nothing of a syphilitic character. I saw him on the 29th of October and the 3rd of November, because I thought he was going abroad. I imagined that his left lung was affected. There were some pulmonary symptoms; and wishing to separate him from his turf companions I recommended him to go abroad for two years. There was nothing venereal about him.

Cross-examined by Serjeant Shee—He was a weak man, and timid on the subject of his throat. He was a man likely to do what any one would bid him; but I do not think he was such a fool as to take quack medicine. (Laughter.) Strong brandy-and-water would not have been good for his symptoms, nor I think for him at any time.

Mr. Charles Newton, assistant to Mr. Salt, Surgeon at Rugeley, stated, that on Monday, the 19th November, Palmer came to him for three grains of strychnia, which he gave him. He only stated this on Tuesday last, because he feared that his employer would be displeased, seeing that he was not on good terms with Palmer, who had taken away his assistant Thirlby. He also stated that Palmer subsequently asked him how much strychnia would kill a dog, and he replied, "a grain." He also asked what would be the appearance of the stomach after death. Witness replied, "There would be no inflammation; and I do not think it could be found." Palmer said, "That's all right," and snapped his fingers and made some other remark to himself. Before the post-mortem examination Palmer said to witness, "You will find this a dirty job; get some brandy. You will find this fellow suffering from a diseased throat; he has had syphilis, and has taken a great deal of mercury." At the post-mortem examination witness saw a chancre on the penis of the deceased.

Charles James Roberts, assistant to Mr. Hawkins, druggist, stated that on Tuesday, the day of Cook's death, Palmer came to the shop and purchased 2 drachms of prussic acid, 6 grains of strychnia, and 2 drachms of Batley's solution of opium. Palmer had not bought any drugs at the shop for two years before.

Mr. William Stevens, the step-father of Cook, was next examined by the Attorney-General. Having described Cook's pecuniary affairs, he stated that he saw the deceased on the 15th of November, and thought him looking remarkably well. He (Cook) struck himself on the chest, and said, "You see I am all right now." He was not of a robust appearance; his complexion was pale. In the previous winter, he had had a sore throat. Witness first heard of his death on Wednesday 21st of November. He went to Rugeley on Thursday, and saw the body, in company with Palmer, who removed the sheet as far as the waist. Witness was struck with the tightness of the muscles across the face. There did not appear to be any emaciation of the body. Palmer afterwards said that Cook had £4000 worth of bills out, with his (Palmer's) name attached to them; but that he had a paper, signed by Cook, to show that he never had any benefit from them. Witness expressed great surprise, and said he feared there would not be 4000s. to pay the bills. Palmer said Cook's horses were mortgaged, and entered into the subject of his debts and property. Witness said he must be buried; and Palmer replied, "Oh, I'll bury him myself, if that's all." Witness said that was unnecessary, and he, as executor, would see to the burial. Palmer urged that the body ought to be fastened up at once, and afterwards, without witness's authority, ordered a shell and coffin. In the afternoon, witness requested Mr. Jones, in Palmer's presence, to get the betting-book and all papers belonging to Cook out of the room in which he lay. Mr. Jones and Palmer left the room, and in ten minutes returned. Mr. Jones said he could find no betting-book or papers. Palmer said, "The book would be of no use, as the debts would be void by Cook's death." Witness ordered Cook's room to be locked up, and that no one should be allowed access to it. Before leaving the house, and after the body was placed in the shell, he went to see it, and taking the right hand in his, he found it firmly clenched; and the left hand was clenched in the same manner. On the following Saturday, he went to Rugeley again. Palmer was in the same train as witness, who told him (Palmer) that he would have a post-mortem examination, to ascertain what his complaints were. Palmer calmly said, "That can be easily done;" subsequently, on the journey, Palmer offered to recommend witness a solicitor, which witness declined. Witness said, altering his tone, "Mr. Palmer, I suppose if I employ a solicitor to give me advice, you will have no objection to answer him any question that he may choose to put to you." Prisoner said, with an evident spasmodic convulsion of the throat, "Oh no, certainly not." After a few minutes' pause, Palmer renewed his offer of recommending a solicitor; but witness said he need not trouble himself. On the Sunday following, witness asked Palmer if he attended Cook in a Medical capacity. He replied, "Oh dear, no." Witness again said he would have the body examined, and Palmer asked whom he was going to call in for the purpose. Witness replied that he did not then know, but that Palmer might be present if he chose. Palmer said, "It is a matter of indifference to me." When Palmer had ordered the shell, the body did not appear in any way decomposed, and did not appear like a dead body at all.

Cross-examined by Serjeant Shee—Cook had a slight sore throat in January, 1855, when he was at my house. I do not know whether it was continually sore; he had no difficulty in swallowing that I observed. I saw no ulcers about the face. I saw him in the course of the summer. He did not appear in ill-health. He had complained of feeling unwell in the spring, and said that if he was not better soon his Medical adviser recommended him to go to a warmer climate. His brother and sister are rather delicate. His father died when 30 or 31, from rupturing a blood-vessel. I do not know whether Cook insured his life.

Mary Keeling was examined by Mr. Welsby, and stated that she went about one o'clock on Wednesday, in company with her sister-in-law, to lay out the body of Cook. The body was warm, but the hands and arms were cold. The arms were crossed upon the chest. The head was bent a little on one side; and the body was very stiff. Witness had laid out many corpses, and had never seen one so stiff before. There was great difficulty in straightening the arms; we could not make them keep down to his body. We tied them down to his body by a piece of tape drawn under the back. His right foot was turned outwards, and we were obliged to take a piece of tape to tie the feet together. The eyes were open, and the eyelids very stiff, and we were a long time closing them. The hands were very stiff, and closed. Palmer

was in the room, and held a light to me while I took two rings off Cook's fingers. There was great difficulty in getting the rings off, owing to the stiffness of the fingers. The hand closed again when the rings were taken off.

Cross-examined by Mr. Grove—It is not usual to use tape to tie the arms of corpses. I never used tape before to tie the arms; I have used it to tie the ankles and the toes. It is usual to lay the arms by the side when a person dies; and if the body gets stiff the arms remain in the same position. It is not difficult to keep the eyes closed if they are properly closed at first. If they are not well closed at first it is difficult to close them afterwards. The jaw is sometimes tied. By the Attorney-General—I have laid out many bodies of all ages. It was half-past one when I went to lay out the body of Cook. I never knew the eyelids so stiff in a corpse before.

Dr. Harland, examined by Mr. Bodkin—I am a Physician residing at Stafford. On the 26th of November I went to Rugeley to make a post-mortem examination. I went to Mr. Bamford's, and I saw Palmer in the street. He said, "I am glad you are come to make a post-mortem examination. Some one might have been sent whom I did not know. I know you." I said. "What is this case? I hear there is a suspicion of poisoning." He said, "Oh, no; I think not. He had an epileptic fit on Monday and Tuesday night; and you will find old disease in the heart and in the head." We then went to Mr. Bamford's together. I had brought no instruments with me; Palmer offered to lend me some, and he said there was a queer old man who seemed to suspect him (Palmer) of something, but he did not know what he wanted. He also said, "He seems to suspect that I have got the betting-book; but Cook had no betting-book, at least none that would be of use to any one." Mr. Bamford and I then went to Mr. Frere's, a Surgeon in Rugeley, and then to the Talbot Arms. The post-mortem examination was then made. Mr. Devonshire operated, and Mr. Newton assisted. Mr. Bamford, Palmer, and several other persons were in the room. I stood near Mr. Devonshire, and observed what was going on. The body was very stiff, more than dead bodies generally are. The muscles were very highly developed; they were strongly contracted and thrown out. There appeared to have been strong spasmodic action. The hands were firmly closed. The abdominal viscera were first examined. [Witness read notes of the examination, showing that the parts were quite healthy.] The viscera were taken out. The liver was healthy; the lungs were healthy, but there was slight emphysema. I examined the head. The brain was healthy. There was no extravasation, and no serum. There appeared nothing which would cause pressure. The heart was contracted, and contained no blood. This was not the result of disease, but of action—spasmodic action. There were numerous small yellowish-white spots at the end of the stomach, about the size of mustard-seeds. They would not, I think, at all account for death. I doubt whether they would produce any effect upon the health. The kidneys were full of blood that had gravitated there since death. There was no appearance of disease. The blood was in a fluid state. That is unusual. It is so sometimes, but rarely in cases of sudden death. I saw nothing which, in my opinion, would account for death. The spinal marrow was not closely examined. The upper part only was examined. On the 25th of January the whole of the spinal cord was examined. [Witness read notes of the examination, showing that the spinal cord was in a normal state, allowing for the lapse of time since the death of the deceased.] At the first examination the stomach and intestines were emptied into a jar. Mr. Devonshire and Mr. Newton placed them there. The prisoner was standing to the right of Mr. Newton. When the stomach and intestines were being removed, a push was given by Palmer, which pushed Mr. Newton on to Mr. Devonshire, and a portion of the contents of the stomach fell into the body. I said to Palmer, "Don't do that." I thought it was some joke between them. The stomach contained about three ounces of brownish liquid. Palmer said to Mr. Bamford, "They won't hang us yet." the stomach and contents were put into the jar. The intestines were examined, and nothing particular was found in them. They were very small and contracted. They and their contents were placed in the jar, which I tied over with two bladders, and I then placed it on the table near the body; Palmer was moving about the room. In a few minutes I missed the jar, and I called out "Where is the jar?" and Palmer from the other end of the room said "It's here; I thought it would be more convenient for you here to take away." There is a door at the end of the room, and Palmer was very near it. That was not the door at which we had entered. I said, "Will you bring the jar here?" and he brought it to me. I saw a slit in the bladders hardly an inch long. It had been made with some sharp instrument. None of the contents of the jar had escaped, the cut being quite clean. I said "Here is a cut: who has done this?" Palmer, and Mr. Devonshire, and Mr. Newton, all said they had not done it. When removing the jar from the room Palmer asked me what I was going to do with it. I said I should take it to Mr. Frere's. He said "I would rather you took it to Stafford." I took it to Mr. Frere's house, and then returned to the Talbot Arms. I left the jar in Mr. Frere's hall, tied and sealed, the bladders having been previously re-arranged. I saw Palmer at the Talbot Arms. He asked me what I had done with the jar. I told him I had left it at Mr. Frere's. He inquired what would be done with it; and I said it would go to Birmingham or London that night.

Cross-examined by Serjeant Shee—At the base of the deceased's tongue I observed many enlarged mucous follicles of long standing; they were not pustules containing matter. I do not suppose they would occasion much inconvenience; they might cause slight pain. I do not believe they were enlarged glands. I should not say that the lungs were diseased, though they were not in a normal state. They were full of blood, and the heart was empty. I had no lens at the post-mortem examination, but I made an examination which was satisfactory to me. The brain was carefully taken out; the membranes and external parts were examined first; then thin slices a quarter of an inch in thickness were subjected to separate examinations. There was no appearance of disease. I examined the spinal cord as far down as possible, and if there had been any appearance of disease I should have opened the canal. We opened down to the first vertebra. If we had found a softening of the spinal cord I do not think it would have been sufficient to have caused death. It would not produce tetanus; it might paralysis. I do not think it was necessary to examine carefully the spinal cord. I do not know who suggested the subsequent examination. There were some appearances of decomposition when we examined the spinal cord, but not sufficient to interfere with the examination. I found certain indications of venereal disease on the body, and the marks of an old excoriation, which were cicatrized over.

Mr. Charles James Devonshire, undergraduate of the University of London, and late assistant to Dr. Monckton, was examined by Mr. Huddleston—I made the first post-mortem examination of the body of Mr. Cook in November last. The body was stiff and pale, the hands being clenched and the mouth contorted. On opening the body I found the liver very healthy. The heart likewise appeared healthy, but was quite empty. In the lungs was a considerable quantity of dark fluid blood. The blood was quite fluid. The brain was throughout healthy. I examined the medulla oblongata, and about a quarter or half-an-inch of the spinal cord. It was quite sound. I opened the stomach with a pair of scissors, and put the contents into a jar, which was afterwards taken to Mr. Frere's, the surgeon. On Monday I obtained the jar in the same state as it was before, from Mr. Frere, and gave it to Mr. Boycott, clerk to Mr. Gardiner, the attorney. On the 29th, I again examined the body, taking out the liver, kidneys, spleen, and some blood. I then put them into a stone jar, which I covered with wash-leather and brown paper, and sealed up. That jar also I delivered to Boycott. Palmer said at the examination that syphilis would be found upon the deceased. I consequently carefully examined the parts, but found no indication of the sort. I took the throat out also. The papillæ were slightly enlarged but were natural, and one of the tonsils was shrunk.

Cross-examined by Mr. Grove, Q.C.—Tetanic convulsions are considered to proceed from derangement of the spine and from complaints affecting the spine. Such derangements cannot always be detected by examination. The spinal cord would be the first organ looked to on examining the body of a person supposed to have died from tetanus. On the first occasion about half-an-inch of the spinal cord exterior to the aperture of the cranium was examined. On the second examination, when the granules were discovered, I was absent.

Dr. Monckton, on being examined by the Attorney-General, said—I am a Physician in practice, residing at

Rugeley. I made a post-mortem examination of the spinal cord of the deceased, Cook, on the 28th January. The muscles of the trunk were in a state of laxity, which I should attribute to the decay of the body that had then set in; yet, in my opinion, that laxity would not be at all inconsistent with great rigidity of those muscles at the time of death. The muscles of the legs and arms were in a state of great rigidity. I could not say there was an unnatural amount of rigidity. The position was peculiar. The muscles of the arm had partially flexed the fingers of the hand. The fingers ought to be relaxed. The feet were turned inwards much more than usual. I examined the spinal cord. I wrote the report read by the last witness. I could make a satisfactory examination. I think we should have detected any disease of the spinal cord, if it had existed. It is difficult to account for the granules. The Report which was read contains my full opinion.

James Myatt, post-boy, at Talbot Arms, who drove Mr. Stevens and Boycott to the railway-station with the jar, stated that Palmer offered him £10 to upset them.

Mr. Samuel Cheshire, post-master, at Rugeley, said—That, at Palmer's request, he wrote the body of a cheque for £350, as from Cook to Palmer, which he (Palmer) said he was going to get Cook to sign, he (Cook) being too ill to write the cheque himself. He requested witness to write it, as he said he thought Messrs. Weatherby, who were to pay the cheque, might know his (Palmer's) handwriting. Cook, he said, owed him the money.

Mr. Weatherby was called, and stated—That he received the cheque from Palmer, purporting to be signed by Cook, but returned it to him, not having sufficient funds of Cook's to pay it. [The cheque was called for on the part of the Crown, but was not produced.]

Mr. Cheshire stated—That after Cook's death Palmer asked him to attest Cook's signature to a document, which, he believed, was in Palmer's writing, relating to some bill transactions between them. Witness refused to sign the document, as he did not see Cook append his signature to it. [This document was also called for, but was not produced.] Witness stated, that the document was to the effect, that certain bills, the dates and amounts of which were specified, were all for Mr. Cook's benefit, and not for Mr. Palmer's. The amounts were large. One bill was £1000, and another £500. On the 5th of December witness read part of a letter sent from London by Dr. Taylor to Mr. Gardiner at Rugeley; and he told Palmer that Dr. Taylor stated, that no traces of strychnia were found. Palmer said he knew such traces would not be found, for he was perfectly innocent.

A letter was put in from Palmer to Mr. Ward the coroner, informing him that Dr. Taylor said there was no strychnine found.

A book was put in, taken from Palmer's house, in which was written a memorandum in Palmer's hand, "Strychnine kills by causing tetanic fixing of the respiratory muscles."

Another book was put in, in which other memoranda had been made by Palmer relative to the properties of strychnine.

Mrs. Hawkes, who keeps a boarding-house in Beaufort's Buildings, proved that she sent, for Palmer, a parcel of game, etc., to Mr. Ward, the Coroner, on the 1st of December.

Mr. Herring was examined as to the settlement of accounts at Tattersall's for Cook, by Palmer's direction, on the 18th of November, 1855.

Mr. Strawbridge, manager of the bank at Rugeley, proved that the name of Mrs. Palmer (prisoner's mother), as acceptor to a £500 bill, was a forgery.

Mr. Thomas Blizard Curling, examined by the Attorney-General—I am a Surgeon to the London Hospital. I have turned my attention particularly to the subject of tetanus, and have published a work on the subject. Tetanus signifies a spasmodic affection of the voluntary muscles. There are only two sorts of true tetanus, idiopathic and traumatic; there are other diseases in which we see tetanic contraction, but we do not call them true tetanus. Idiopathic tetanus is a primary disease. Apparently self-generated. Traumatic tetanus arises from wounds or other injuries. Idiopathic tetanus arises often from exposure to damp and cold, and from the irritation of worms in the alimentary canal. It is a very rare disease in this country. It does not usually end fatally. I have never seen a case of idiopathic tetanus; and I cannot tell the proportion of fatal cases. I have been Surgeon to the London Hospital twenty-two years. I have seen at least fifty cases of traumatic tetanus; I think a hundred would be nearer the mark. Traumatic tetanus first manifests itself by stiffness about the jaws and back of the neck, debility, stiffness of the muscles of the abdomen, and dragging pain in the pit of the stomach; and in acute cases the muscles of the back are affected. The patient is liable to paroxysms by an aggravation of the disease; these become more frequent and severe as the disease goes on. When they occur the body is drawn backwards; in some instances, though less frequently, forwards. In acute cases a difficulty in swallowing is a prominent feature; also a difficulty of breathing during the paroxysms—a choking sensation. The disease may end, supposing it to be fatal, in two ways. The patient may die somewhat suddenly from suffocation by the closure of the opening of the windpipe; or the patient may be worn out by the severe and painful spasms; and the muscles may relax, and the patient gradually sink and die. The locking of the jaw is an almost constant symptom of traumatic tetanus; it is not always strongly marked. It is an early symptom. There is a peculiar expression of the countenance characteristic of the disease. There is a contracted condition of the eyelids, a raising of the angles of the mouth, and a contraction of the brow. The lower extremities are affected, and sometimes (though somewhat rarely) the upper. The muscles chiefly affected are those of the trunk. When a wound is in the lower extremities the muscles there may be affected early; otherwise at an advanced period. I never knew of traumatic tetanus being produced from sore throat, nor from chancre. I know of no instance of tetanus from syphilitic sores. In traumatic tetanus death occurs in from twenty-four hours to three or four days, or longer: the time varies considerably. The shortest period I recollect was eight or ten hours; the time could not be precisely ascertained. The disease, when once commenced, is continuous. I never heard of a case of a man being attacked one day, then having an interval of twenty-four hours, and then being attacked again. I should not think such a thing could occur. I heard Mr. Jones's account of the death of the deceased. The symptoms were not those of any form of traumatic tetanus I have ever seen. There was a sudden onset of the fatal symptoms. In all cases under my notice these have been preceded by the milder symptoms, which gradually develope themselves into the more severe. I heard the description of the woman Mills. The symptoms she described were not those of tetanus. There was an absence of continuity. There was a spasmodic contraction of the muscles. I do not consider that there was either idiopathic or traumatic tetanus on the Monday night. The Attorney-General—Just state why. Witness—The sudden onset of the spasmodic contractions, and their rapid subsidence, are not consistent with true tetanus. There is a form of hysterical tetanus: it is rather hysteria combined with spasms. It does not end fatally, and it is chiefly confined to the female sex. I know no instance of its occurring in a male. Certain poisons produce tetanus; they are strychnia and brucia. I have not seen a case of animal life destroyed by strychnia.

Cross-examined by Serjeant Shee: I have known spasms arise from disease of the spinal cord. Irritation of the spinal cord, or of the nerves leading to it, might produce tetanus. I agree with Dr. Watson in his work, that tetanus in four cases out of five begins with trismus or locked jaw, and also that it may be produced from causes so slight as the sticking of a fishbone in the fauces, a stroke of a whiplash under the eye, leaving the skin unbroken, the extraction of a tooth, the cutting of a corn, the injection of hydrocele, the insertion of a seton, the operation of cupping, etc., but not from the percussion of the air from a musket-ball. I have stated in my book that a negro died in a quarter of an hour from a wound in the thumb from broken china, but I found no reference to that case except in Encyclopædias. I was a young man when I wrote that book. Idiopathic cases of tetanus would not be so likely to come to the hospital. I never knew a case terminate fatally in a quarter of an hour. There was a case in the London Hospital of tetanus, in which death occurred so quickly that it was referred to strychnia. No strychnia, however, was found; but I believe sores were found on the body; I do not know that the sores were syphilitic. I don't think that friction and the excitement from syphilitic sores would produce tetanus. A case of tetanus rarely occurs which it is difficult to refer either to traumatic or idiopathic tetanus. The contractions of epilepsy are not continuous for five or ten minutes together. I have not known of a case of

convulsions attributable to no particular cause, but occurring very violently, produce tetanus. Sergeant Shee—Do you agree with Dr. Copland when he says, under the head of "General Convulsions," that their character is sometimes so violent, and spastic, and continuous, that they nearly or altogether approach tetanic spasms? Witness—I have never observed anything of the kind. Tetanus is not always accompanied by any perceptible lesion of structure. I do not know that tetanus is preceded by nausea, vomiting, distension of the stomach, etc. I do not know that convulsions are accompanied by yelling and shrieking and spasm of the respiratory muscles inducing suffocation.

Re-examined: General convulsions are distinguishable from tetanus. There is generally loss of consciousness in convulsions; not so in tetanus.

Dr. Todd—I am a Physician to King's College Hospital. I have directed my attention to tetanus and diseases of the nervous system; and have published Lectures on those diseases. I agree with the last witness as to the distinction between idiopathic and traumatic tetanus. I have seen two cases of idiopathic tetanus. I define idiopathic tetanus as that form which comes from a constitutional cause, without any apparent external lesion. I think the term tetanus ought not to be applied to cases of poison. I would call the symptoms, however, tetanic. I have seen cases of traumatic tetanus. The symptoms are the same as those of idiopathic tetanus. The disease usually begins with stiffness about the jaw; and then the symptoms extend themselves to the muscles of the body. The symptoms are gradually developed, beginning with the milder forms. There is no complete intermission; there are diminutions, but no total subsidence. I speak of my own experience. Acute cases of tetanus terminate fatally in three or four days; chronic cases will continue from nineteen to twenty-two days, or longer. I have never known a case of death in less than four days. Some cases are related in which death occurred earlier. The extremities are affected, but not so much as the muscles of the trunk. Trismus is an early symptom. Epilepsy does not produce tetanus; it sometimes produces convulsions, which occasionally assume a somewhat tetanic character, but they are very distinct. The epileptic convulsions are soon over; they are not persistent; and consciousness is lost for the time. That is a feature of epileptic convulsions—distinguishing it from all other convulsive diseases and from tetanus. I should say that apoplexy does not produce tetanic convulsions. In some cases of effusion of blood into the brain there may be convulsions of a slightly tetanic character; but consciousness would be completely destroyed. I have heard of the appearance of the body of the deceased before and after death. They do not, in my opinion, indicate epilepsy or apoplexy. [It was here proved by two witnesses that Mr. Bamford, the Surgeon, was very ill; and his deposition before the Coroner was accordingly read. It stated the symptoms of Cook before death in much the same terms as the other witnesses; and the deponent further expressed his opinion that the deceased died from apoplexy, and said that the blood-vessels of the dura-mater were found to be very full when the brain was examined.] Dr. Todd's examination continued—I do not, after hearing Mr. Bamford's evidence, believe that death was produced by apoplexy or epilepsy. I have never known tetanus arise from syphilitic sores, nor from a sore throat. Tetanic convulsions may be produced by poisons; chiefly by nux vomica; by those poisons which contain, as their active principle, strychnia and brucia. I have often seen animal life destroyed by such poisons. I should not like to give a human subject a quarter of a grain of strychnia. I consider a grain would destroy human life. Half-a-grain will destroy a cat. I have seen it administered in solution, in which form it acts more speedily. After administration, the effects on the animal would begin very soon, if the dose were large. The effects would be spasmodic contraction of the spinal muscles; the head being bent back. The extremities are generally stiffened by the violent jerks. The stiffness does not perfectly subside afterwards. Fresh paroxsyms come on. The action of the muscles is a jerking motion. Death might occur in a quarter of an hour or half-an-hour if the dose were large. I know no other poison that will produce tetanic symptoms. I have seen a person suffer from the consequences of an overdose of strychnia. There were in that case the symptoms I have already described. The difficulty of breathing is common to all forms of tetanus. In the case to which I have referred the jaw might have been very slightly affected. In the case of Cook there appeared to be nothing about the jaw or throat characteristic of proper tetanus. I do not believe Cook's death to have resulted from idiopathic or traumatic tetanus. I believe the symptoms were those of tetanus from strychnia.

Cross-examined by Mr. Grove—There are many degrees of convulsions. I have published lectures on disease of the brain. I have stated there that the symptoms produced by strychnia were exactly similar to tetanic symptoms in every respect. The peculiar irritation of the nerves in tetanus is identical with the irritation of the nerves in cases of strychnia poisoning. There are various forms of traumatic tetanus. I recollect no instance in which the limbs have been affected before the jaw. I am not very familiar with Mr. Curling's book. A speedy examination of the spine after death is of importance in a pathological point of view; morbid appearances are produced after death simulating appearances of disease before death. The signs of decomposition would easily be recognized. One could not speak certainly of simple softening of the cord if the examination were long after death. There is nothing in an ordinary post-mortem examination which would indicate death by tetanus. Granules upon the spinal cord would not be likely to produce tetanus. I am not aware of any cases of tetanus in which small bony deposits have been seen on the arachnoid. I am not familiar with the cases recorded by Mr. Travers. The spasms in tetanus are apt to be excited by the touch. I have seen animals go off into fresh spasms on being touched. That is commonly observed. I have examined animals anatomically that have died from strychnia. The right side of the heart was not generally full. The heart has generally been contracted. I have not seen any cases lately. I think death in tetanus is partly due to the spasmodic action of the respiratory muscles, but chiefly to great nervous exhaustion. I do not think that strychnia asphyxiates. I do not agree with Dr. Taylor and others, who think that strychnia asphyxiates. If an animal dies asphyxiated the right heart is usually filled with blood. Morphia I believe sometimes produces convulsions, but they are more of an epileptic character. Morphia is a vegetable alkaloid as well as strychnia. The convulsions from morphia would come on late, I should think. I do not know whether I have seen the effects of strychnia given to the lower animals come on so late as an hour and a-half. I have not seen marked trismus in animals poisoned by strychnia.

Re-examined by the Attorney-General—Trismus, if occurring at all, would come on soon. It is not a marked symptom. In ordinary tetanus the heart is not filled with blood after death. In cases of strychnia poisoning the spasm extends to the heart. A Medical Practitioner would not, I think, have any difficulty in distinguishing tetanic from ordinary convulsions. I heard the description of the examination of the spinal cord after death. I imagine, if disease had existed, it could have been detected. I do not know whether, after death, the rigidity of the muscles continues long.

Sir Benjamin Brodie, examined by Mr. James—I am a Surgeon of considerable practice. I have seen many cases of tetanus. Idiopathic tetanus is very rare in this country. I attended to the statement of the symptoms of the deceased on the Monday and Tuesday. The spasmodic contractions of the muscles were similar to those of traumatic tetanus; the course which they took was entirely different. The symptoms of traumatic tetanus always begin, as far as I have seen, very gradually; the stiffness of the lower jaw being, I believe, the symptom first complained of: so it has been in my experience. The contractions of the muscles of the back is always a later symptom, generally much later. The muscles of the extremities were affected in a much less degree than those of the neck and trunk, except in some cases where the injury has been in a limb, when an early symptom has been spasmodic contraction of the muscles of the limb. I do not myself recollect a case of ordinary tetanus in which there was a contraction of the muscles of the hand like that stated in the case of the deceased. Then ordinary tetanus rarely runs its course in less than two or three days, and often is protracted to a much longer period. I knew one case only in which the disease was said to have terminated in so short a time as twelve hours, but probably in that case the early symptoms had been overlooked. Then, I never knew the symptoms of ordinary tetanus to last for a few minutes, then subside, and then come on again after twenty-four hours. I think these are the principal points of difference between the symptoms of

ordinary tetanus and those that I have heard described. I have not witnessed the effects of strychnia upon animal life. In my opinion Cook's death did not arise from either idiopathic or traumatic tetanus. I never heard of tetanus resulting from sore-throat or from a chancre, or any other form of syphilitic disease. The symptoms that have been described were not those of apoplexy or epilepsy. Perhaps I had better say at once that I never saw a case in which the symptoms I heard described arose from any disease. When I say that, of course I refer not to the particular symptoms, but to the course the symptoms took.

Cross-examined by Serjeant Shee—I remember one case which was shown me as a case of idiopathic tetanus; but I doubted whether it deserved the name of tetanus. I do not remember the particulars. Serjeant Shee—Considering the rarity of the disease, do you think you could rely upon the statement of a chambermaid, or a provincial Medical man who had only seen one case, so as to give your opinion? Witness—I thought the statements were given very clearly. Serjeant Shee—Have you seen cases in which syphilitic poison has produced convulsions? Witness — Only when there has been disease in the bones of the head.

Dr. Daniel, of Bristol—I was for many years a Surgeon, but I have now retired. I have seen a considerable number of cases of tetanus. I have seen two cases of idiopathic tetanus, one of which terminated fatally. The symptoms were not so severe as in traumatic tetanus. I could not trace those two cases to any particular cause. I agree with the statement of previous witnesses, as to the course of the symptoms in ordinary tetanus. I have heard the descriptions of Cook's symptoms. They were distinct from the symptoms of the cases of tetanus which I have seen. I agree with Sir Benjamin Brodie as to the points of distinction. Tetanus begins with uneasiness in the lower jaw, followed by spasms of the muscles of the trunk, and most frequently extending to the muscles of the limbs. The muscles of the limbs are generally affected at an advanced period. Locked jaw is a common symptom, especially in traumatic tetanus; but it is an early symptom. The clenching of the hands and the twisting of the feet are not ordinary symptoms. I cannot recollect death occurring in less than thirty or forty hours. I have seen many cases of syphilitic disease. I never knew syphilitic sores produce tetanus. I do not consider that Cook's symptoms were those of apoplexy, or epilepsy. In these diseases there is a loss of consciousness. In all the cases of tetanus that I have seen consciousness has been retained to the last. The symptoms have been invariably continuous. I never saw any intervention of several hours. The symptoms have been very mild at first, and gradually increased in severity. In my judgment the symptoms of Cook could not be referred to idiopathic or traumatic tetanus, or to any other disease with which I am acquainted.

Cross-examined by Mr. Grove—I have not looked into this subject much of late years. I am not aware of excitement or irritation from vomiting producing tetanic convulsions. The symptoms of tetanic convulsions vary very much; I don't think pure traumatic tetanus affects different muscles in different persons, at least the difference is very slight; death often arises from exhaustion.—Does it arise from asphyxia? I don't like the term "asphyxia;" they may die, perhaps, of suffocation sometimes.—I do not think the heart is full after death in cases of tetanus. The wounds producing tetanus bear an exceedingly small proportion to those which do not produce it. I never saw, in a post-mortem examination of the spinal cord, any change to which tetanus could be referred.

Mr. Solly—I am a Surgeon to St. Thomas's Hospital. I have been connected with the Hospital as Lecturer and Surgeon twenty-eight years. I have witnessed some cases of tetanus, six or seven under my own care, and about fifteen others. They were traumatic cases. One was rather doubtful, and might have been idiopathic. The wound was very slight. The symptoms were slower in their progress and generally rather milder. I can remember no case of death under thirty hours. The symptoms were always progressive. I do not believe Cook's symptoms to be referrible to tetanus. They differ essentially from those of the cases of tetanus that I have seen. In those cases there has been a marked expression of countenance, as the first symptom. It is so peculiar, that having once seen it, you can never mistake it. In Cook's case there were violent convulsions on the Monday night, and on the Tuesday he was entirely free from any discomfort about the face or jaw. The symptoms have been always continuous in the cases of tetanus, and the peculiar expression of countenance with the stiffness of the jaw, is the last symptom to disappear. The muscles of the jaw are first affected, then those of the trunk, and then those of the limb. I do not think Cook's symptoms were referrible to apoplexy, epilepsy, or any other disease that I have ever witnessed.

Cross-examined by Serjeant Shee — The peculiar grin (called *risus sardonicus*,) may perhaps occur in idiopathic tetanus. The paroxysms of Cook bore some resemblance to epilepsy. All convulsions are not attended with loss of consciousness. Death from epilepsy with convulsions generally leaves a trace behind, a slight effusion of blood in the brain. I am not aware of its occurrence without leaving a trace behind.

Re-examined—The convulsions of epilepsy are not of a tetanic kind; when a patient dies of epilepsy he is unconscious. Laceration of the brain, injury of the spinal cord, and the irritation of teething, may produce convulsions which will terminate in death.

Mr. Henry Lee, examined by Mr. Bodkin—I am a Surgeon to King's College and the Lock Hospitals. I have been connected with the latter for eighteen years. The Lock Hospital is devoted to syphilitic disease. I see not less than 3000 cases of the disease a-year. I have seen a considerable number of cases of syphilitic sore-throat and chancre. I never knew an instance in which either of those forms of disease terminated in tetanus. I have not had much experience in cases of tetanus.

By Lord Campbell—I have heard of one case of syphilitic disease producing tetanus.

Dr. Robert Corbett—I am a Physician practising at Barr Head, near Glasgow. In September, 1845, I was Medical Clerk at the Glasgow Infirmary. I remember a patient named Agnes Sellett. She died on September 27, 1845. It was stated that she had taken strychnia pills, which were intended for another patient. I saw her the day before, when she was perfectly well. I saw her under the influence of the poison. She was then in bed. There was a retraction of the mouth; the face was much suffused and red; the pupils were dilated; the head was bent back; the spine was curved; and the muscles were rigid and hard, like a board; the arms were stretched out, and the hands clenched; there were severe paroxysms. She died in about an hour and a-quarter after taking the pills, and nearly an hour after I saw her. There should be a quarter of a grain of strychnine in each pill: she took three pills. The patient for whom they were made was paralytic, and was to take one pill at a time.

Cross-examined by Serjeant Shee—The retraction of the mouth was continuous. I don't think I observed it after death. The hands were not clenched after death; they were semi-bent. That was forty-four hours after death. The semi-bent position of the hand is common in death by violent convulsions. The patient was attacked in twenty minutes after taking the pills. I tried to make her vomit with a feather; she vomited partially; I gave her an emetic, and afterwards used the feather.

Re-examined—There was no locked-jaw, but there was grinding of the teeth; she could open her mouth and swallow. By Serjeant Shee—I do not recollect whether she was in such a condition that a touch would send her into a paroxysm.

Dr. Watson—I am one of the Surgeons of the Glasgow Infirmary. I recollect the case mentioned by the last witness. I was called in about a quarter of an hour after she was taken ill. She was in violent convulsions. Her arms were stretched out and rigid, and the feet and legs also. For the moment she did not breathe, the respiratory muscles being so rigid. Other paroxysms came on after short intervals. She seemed perfectly conscious. I do not recollect the state of her hands. Her body was opened. The heart was contracted, and the cavities were empty. My father published an account of the case. The spinal cord was quite healthy.

Dr. James Paterson—In 1845 I was an apprentice in the Infirmary at Glasgow. I dispensed prescriptions there. I remember, in September, dispensing four pills of strychnia for a paralytic patient: the pills contained a quarter of a grain each.

Mary Kelly—In September, 1845, I was in the Infirmary at the Hospital at Glasgow, as a patient. I had to attend to another patient, a paralytic, in the same ward. I remember Agnes Sellett, who was suffering from a sore head. In the afternoon on which Sellett died I was turning a wheel that

was being applied to the skin of a paralytic patient. While I was doing it Sellett came and spoke to me. There was a box with some pills in it close by. The paralytic patient took one, according to the order that had been given. She then handed the box to Sellett, who took two of the pills, and then sat down by the fire. In about three quarters of an hour she was taken ill. She fell back on the floor. I then went for the nurse. We lifted her into bed. The nurse cut her clothes off. The patient never moved; she was like a poker. I did not notice her hands or feet. She never spoke after she fell.

Caroline Hickson—In October, 1848, I was nurse and lady's-maid in the family of Mrs. Sargentson Smith, residing near Romsey. On the 30th of October, Mrs. Smith was ill. A prescription had been made up for her by Mr. Jones, a chemist in Romsey. It was sent home in a bottle. I saw my mistress take it. She took about half a wine-glassful, about five or ten minutes past seven. I then left the room, and in five or ten minutes I was alarmed by the ringing of the bell. When I went to Mrs. Smith's room, she was leaning over from the bed on to a chair. I thought she had fainted. Shortly afterwards she appeared to suffer from what I thought spasms. I went down stairs, and sent for Mr. Taylor, the Surgeon. When I returned my mistress was lying on the floor. Her teeth were clenched. She screamed very much, and asked to have her arms and legs held straight. I took hold of her arms and legs; they were very much drawn up. She seemed in great agony. She asked for water to be thrown over her, which was done. Her feet were turned inwards. A bottle of hot water was placed to her feet, but it did not relax them. Shortly before she died she said she felt easier. The last words she uttered were, "Turn me over." I turned her over. She died very quietly in a very few minutes afterwards. She was quite conscious during the whole time. She knew me quite well. From the time she took the medicine to the time of her death about an hour and a-quarter elapsed.

Cross-examined by Mr. Grove—She could not sit up at all after being attacked with spasms. The cold water seemed to produce no effect. The fits were continually recurring. Her teeth were clenched quite close.

Francis Taylor—I am a Surgeon and Apothecary at Romsey. I attended Mrs. Smith in 1848. I remember finding her dead one morning between eight and nine o'clock. The hands were clenched; the feet were turned inwards; the soles of the feet were hollow, and the toes contracted, the result, apparently, of spasmodic action. The inner edge of each foot was turned up. The body was warm, and the limbs were remarkably stiff. The eyelids were almost adherent to the eyeballs. The druggist who made up the prescription was named Jones. I made an examination of the deceased's body three days after death. The contraction of the feet continued, but that of the rest of the body had somewhat diminished. I found no trace of disease in the body. The heart was contracted and perfectly empty. The large arteries leading from the heart were also quite empty, and the blood was fluid. I analyzed the medicine, of which she had taken a part, and found a large quantity of strychnia. There were six grains in the bottle, and Mrs. Smith had taken three grains. The stomach was not very carefully examined.

By Serjeant Shee—I am not aware that the body is often much distorted after death. I think it is not usual for it to remain exactly in the same position in which it dies. There was great difficulty in laying out the body of Mrs. Smith. The ankles had to be tied with a handkerchief. We commenced our examination with the thorax and abdomen. The head was examined afterwards.

Charles Broxton, apprentice to Mr. Jones, the Druggist, gave evidence as to the mistake in making up the prescription, by which strychnia was substituted for another ingredient.

Jane Witham—In March last I was in attendance on a lady who died. She took some medicine, and soon became ill. She first complained of her back. She said, "Oh! come to my back." Her head was thrown backwards, and I could not get to her back. I observed a twitching of the hand. Her eyes were drawn aside and staring. She first complained of being ill on the 25th of February, and she died on the 1st of March. She had several attacks; the first was on Monday, the 25th, and the others on the Wednesday, Thursday, Friday, and Saturday following. She was better on Saturday afternoon, and died in the evening at a quarter to ten. She principally complained of pricking in her legs, and twitching of the muscles of the hand, which she said she could compare to nothing but a galvanic shock. During the attacks she requested her husband to rub her legs and arms. She died before the Doctor came.

Cross-examined by Serjeant Shee—On Saturday night she could not bear her legs touched. The spasms were much stronger then than on other days. Her limbs were rigidly extended. On the Saturday, touching her appeared to bring on the spasms. She could not swallow during the spasms on the Saturday. I left the house immediately after her death. She did not speak. We could not tell whether she was conscious.

Mr. George Morley—I am a Surgeon, and attended the lady referred to by the last witness. I had attended her about two months previous to her death, for functional derangement. On the Monday before her death I saw her in bed, apparently comfortable, but I observed several slight convulsive twitchings of her arms. She had then recovered from an attack. I referred these twitchings to hysteria, and prescribed accordingly. I saw her again on the Wednesday or Thursday, and on Saturday in the middle of the day. She was then in a quite composed state, and apparently better. She complained of an attack she had had in the night. She spoke of pain and spasms, spasmodic affection of the back and neck, and said she had had a "shock." I was sent for on the Saturday night, with Dr. Hobson, and found her dead. We made no close examination. On Monday I made a post-mortem examination with another Medical gentleman. We found no disease which could account for death. There was no emaciation, nor any wound or sore, except from a mustard poultice. There was a peculiar expression of anxiety about the countenance. The hands were semibent; the feet strongly arched. We examined the stomach and its contents. We applied nitric acid, proto-chloride of tin, sulphuric acid, and bichromate of potash, in the liquid, and also in the solid state. Those are the best tests for strychnia. We produced in each case the characteristic appearances of strychnia. We inoculated animals with the contents of the stomach after separation: two mice, two rabbits, and a guinea pig. We observed in each of the animals more or less of the results produced by strychnia poisoning; general uneasiness, difficult breathing, convulsion of a tetanic kind, muscular rigidity, arching backwards, especially of the head and neck, and violent stretching out of the legs. Death followed in four of the animals: in the rabbit in two minutes; in another of the animals in five minutes; and in another in a little less than a minute. The guinea pig suffered but slightly at first; it was left, and found dead the next day. The fifth animal exhibited strongly-marked symptoms of strychnia poison, and lay apparently dead for a while, but recovered. The animals were very stiff after death, the stiffness being greater than the usual rigor mortis. We also made experiments on other animals with strychnia itself in a liquid form. The symptoms and the results were exactly the same as I have described in the other animals.

By Mr. Grove—I did not see the patient during any severe attack. I have observed in the lower animals that a touch brings on recurrence of the spasm. The patient was not insensible at any time when I saw her. The lungs were found very much congested after death; there was a bloody serum in the pericardium and in the pleura. The muscles generally were dark and soft. There was a serous effusion over the surface of the brain. There was some bloody serum in the membranes of the spinal cord. The brain was congested, as were the membranes of the spinal cord. We opened the head first, and a good deal of blood flowed out; part of it might have come from the heart, and have partially emptied it. I have often examined the hearts of animals that have been poisoned by strychnia. The right side is generally full. I think I have seen cases in which the effects on animals have not shown themselves for an hour; generally they come on much earlier. We detected strychnia in the case in question by all the tests. In one case where strychnia has been given, I have failed to discover it after death. I have found it in nearly all cases. In the case where it was not found, there was some doubt whether it had reached the stomach. I have detected strychnia in the stomach nearly two months after death, after decomposition had proceeded to a considerable extent.

Re-examined—The quantities I have given have been from under a grain to two or three grains, and the animals have been rabbits and dogs. I have given about two grains to a dog. The strychnia, I think, acts upon the nerves, and a part may also be taken into the blood. It is in part absorbed.

I have generally searched for the strychnia in the stomach; sometimes under the skin. What was found in the stomach would be that which was in excess beyond that which was absorbed into the system. That which is absorbed is sufficient to destroy life. I am giving you only my opinion. I am not sure whether strychnia may not lie in the stomach, and act prejudicially, without being absorbed. If the *minimum* dose required to destroy life were administered, I should expect sometimes to fail to detect any in the stomach. If death resulted from a series of minute doses of strychnia extended over several days, the appearances, I think, would be somewhat different from those in cases where strychnia had been given in larger doses.

Cross-examined by Serjeant Shee—I am inclined to think that when the strychnia is absorbed it ceases to exist in the system as strychnia. A part may be absorbed unchanged; a part may undergo a chemical change; and a part may remain in the stomach unaltered. Serjeant Shee—What chemical reason can you give for the opinion that the strychnia after absorption is changed? Witness—I rest it upon the general fact that, in acting upon the living body as food or medicine, organic bodies are frequently changed in their composition. I do not know that strychnia, after producing poisonous effects, has been found in the liver and blood as strychnia; it is probable. I do not know whether it could be decomposed.

Mr. Edward Moore—I was formerly in practice as a Surgeon. I once attended, with Dr. Chambers, a gentleman named Clutterbuck, for paralysis. That was about fifteen years ago. We had been giving him small doses of strychnia. He went to Brighton, and then returned. He told me that he had taken stronger doses of strychnia. In consequence of that, I gave him a stronger dose than I had given him formerly. I made up three draughts, a quarter of a grain in each. He took one grain. He told me he had taken three-quarters of a grain at Brighton. I remained with him some little time, and left him quite comfortable. In three-quarters of an hour I was summoned to visit him. I found him stiffened in every limb; his head was drawn back, and he was screaming violently for us to turn and rub him. I tried to give him some ammonia with a spoon. He first snapped at the spoon convulsively. He suffered about three hours. He was perfectly conscious during the whole of the time.

By Serjeant Shee—The patient recovered. The rigidity of the muscles continued during the whole of the day, and part of the next day. He thought his paralysis was better after the attack. Strychnia was given to stimulate the nerves.

Dr. Alfred Swaine Taylor, by the Attorney-General—I am a Fellow of the College of Physicians, and Lecturer on Medical Jurisprudence at Guy's Hospital, and the author of a work on Poisons, and another on Medical Jurisprudence. Among other poisons, I have given my attention to strychnia; it is the produce of nux vomica, which also yields brucia, a poison differing in strength and in some chemical qualities. The whole quantity of the two alkaloids in nux vomica, is from one-half to one per cent; brucia is from $\frac{1}{3}$ to $\frac{1}{12}$ of the strength of nux vomica. Impure strychnia, as sold in shops, contains more or less brucia. Unless we are sure of the purity of the article, we may be deceived as to the strength. I have tried many experiments as to the effect of strychnia on animal life; but I have not witnessed its effects on the human subject. I have seen its effects on animal life in perhaps ten or twelve instances. I have always experimented upon rabbits. The symptoms manifested have been on the whole very uniform; but the quantity I have given has varied from $\frac{1}{2}$ to 2 grains. I have found $\frac{1}{2}$ a grain, in a solid state, enough to destroy the life of a rabbit. I have given it in the liquid state also; death has occurred in a very few minutes. When the poison has been given in a fluid state, death has ensued in from six to eleven minutes. The time of death taking place is influenced by the strength of the dose, and also by the strength of the animal. The poison is first absorbed into the blood, and it especially acts on the spinal cord, from which the nerves affecting the voluntary muscles proceed. The circulation of the blood through the whole system is supposed to take place once in four minutes; I speak of the human subject. The circulation of the rabbit is quicker; and so, I think, is the absorption. The rapidity of the effects produced would also depend on the state of the stomach, as to whether it contains much food, and as to whether the poison comes in contact with the inner surface of the stomach. I believe the poison must be absorbed before it can act on the nervous system. After taking strychnia, the animal for about five or six minutes does not appear to suffer; and it moves about actively. When the poison begins to act, it suddenly falls on the side. There is a trembling of the whole of the muscles of the body, a sort of quivering motion passing through them all, arising from the poison producing these involuntary contractions. There is then a sudden paroxysm or fit. The fore-legs are stretched out, the hind-legs also are stretched out; the head is drawn back, and the tail so drawn as to give the spine the form of a bow; the jaws are spasmodically closed; the eyes are prominent and protruding; and, after a short time, there is a slight remission of the symptoms. The animals appear to be quiet. The slightest touch or noise produces another convulsive paroxysm. Sometimes there is a scream or shriek as if the animal suffered from severe pain. The heart beats very violently during the fit; and after a succession of these fits, the animal dies quietly. I have only known of the occurrence of death sometimes by holding my hand on the heart; occasionally it dies apparently in one of the spasms. —What peculiar outward appearances have you observed after death? The appearances differ. In some instances the rigidity has apparently continued throughout. The animal has died in a rigid state, and rigidity has remained after death; the muscles being so strongly contracted that, for a week afterwards, it was possible to hold the animal horizontally extended by the hind-leg without the body falling. In an animal killed the other day, the body was flaccid at the time of death, but it became rigid about five minutes afterwards. I have not seen the animal since. I have opened the bodies of animals thus destroyed, and have found nothing in the stomach indicating any injury there. In one or two instances, I have found congestion of the vessels of the membranes of the spinal cord, and brain more than has been due to the gravitation of blood after death. In other cases I have found nothing unusual with regard to the spinal cord or the brain. I think the congestion to which I have referred has been due to the succession of fits which the animal has had before death. I have found no abnormal appearances in the spinal cord or brain in three cases out of five. In every case I have seen in animals, the heart has been congested, especially on the right side. I have seen cases of tetanus in the human subject; not many lately, however, I saw one case in St. Thomas's Hospital, last Thursday week. The patient was recovering. I have heard the description of Cook's symptoms by Mills and Mr. Jones. They were similar to those in the animals to which I have administered strychnia. The animals have died after varying intervals. One died in thirteen minutes; and one in seventeen minutes. Death takes place more rapidly after the appearance of the symptoms when strychnia is given in a fluid, than when administered in a solid state. My experiments have been lately performed with strychnia in the solid state. In the first case I experimented upon, the symptoms began in seven minutes, and the animal died in thirteen minutes, including the seven minutes. In the second, the symptoms appeared in nine minutes, and the animal died in seventeen. In the third, the symptoms appeared in ten minutes, and the animal died in eighteen. In the fourth, the symptoms appeared in nine minutes, and the animal died in twenty-two. In the fifth, the symptoms appeared in ten minutes, and death took place in twenty-three minutes. I should think the poison, if taken in the form of pill, would take longer to act in the human subject. It would require that the pill should be broken up, in order to bring the poison in contact with the mucous membrane of the stomach. I administered the strychnia to the animals in pills. I do not think we can fairly draw any inference as to the relative rapidity of death in the rabbit and in the human subject. The Attorney-General: Why? Witness:—The circulation and the absorption in the two cases are different. There would be a difference in one human subject and another, probably owing to the difference in the power of the absorbents; and there would be a difference according to the materials with which the strychnia was compounded. The strength of the dose would affect the rapidity of the occurrence of death. A large dose would produce a more rapid effect than a small dose. I have experimented upon the intestines of animals poisoned by strychnia. The principle of extracting strychnia consists in putting the stomach and its contents in alcohol mixed with a small quantity of sulphuric acid, which dissolves the strychnia. We then get sulphate of strychnia. The liquid is filtered, gently evaporated, by which we get rid of the alcohol, and an alkali added (carbonate of potash), and the strychnia is precipitated. There are

tests applied to strychnia, or the supposed strychnia, when extracted. Strychnia has a peculiar taste,—a strongly bitter taste. It is nearly insoluble in water; it is soluble in acids and in alcohol. It is precipitated by alkalies when it has been dissolved in an acid. The colour-tests are applied to the dry residue of the evaporation. The substances applied for the colour-tests are strong sulphuric acid and bichromate of potash, which produce a blue colour, changing to a a violet, or purple, and passing to a red. The colour-tests are very fallacious, with this exception,—when we have strychnia separated in a crystallized state, when we have recognized the crystals by their form and their chemical properties, and, above all, when the substance produces tetanic symptoms at death if introduced into a wound of the skin or a puncture. The poison operates more quickly when introduced into a wound or puncture, than when taken into the stomach. There are other vegetable substances besides strychnia which will exhibit similar results after the colour-tests. A mixture of sugar and bile will exhibit the purple and red appearances; a substance called pyroxanthine will also produce precisely the same colours as strychnia. I have known persons deceived in my laboratory, thinking that strychnia was present when it was only pyroxanthine with a small amount of salicine. This mixture has a bitter taste. Vegetable poisons are more difficult to detect than mineral poisons: the tests are more fallacious. I have endeavoured to discover strychnia in four cases of animals after death, assisted by Dr. Rees at Guy's Hospital. We applied the process I have just described. I endeavoured to reproduce the strychnia, and then apply the colour-test. In one there was the indication by the colour-test; and in another case there was only a bitter taste, and no indication by the colour-test. In two other cases there was no indication whatever. I had given two grains in the case where the strychnia was discovered by the colour-test; and one grain where there was a bitter taste; and one grain in one case where there was no indication, and half a grain in the other. How do you account for the absence of any indication of strychnia, in cases where you know it was administered? It is absorbed into the blood, and is no longer in the stomach. Some is found in the stomach in cases where a large dose has been given, that being an excess beyond what was required for the destruction of life. If a minimum dose was given, I should not expect to find any; all would be absorbed, and none be discovered in the stomach. The smallest quantity I tried in a rabbit was half a grain. I know no satisfactory process for detecting strychnia in the tissues. The small quantity which exists there cannot, I think, be discovered. Supposing a dose of half a grain to be entirely absorbed, and assuming the quantity of blood to be 25lbs., this would be equivalent to only the fiftieth of a grain diffused through a pound of blood. A physician in Canada once died from half a grain in fourteen minutes. I believe the strychnia partially undergoes some changes in the blood. I never heard of its being separated in a crystallized state from the blood tissues. The crystals are peculiar in form. They present themselves in the form of octohedra and quadrilateral prisms, with octohedral summits. There are other organic substances which crystallize somewhat similarly, so that a Chemist would not rely on the crystalline forms only. After the post-mortem examination on the body of Cook, some of the contents were forwarded to me, being delivered by Mr. Boycott. They were contained in a jar covered with a bladder, tied and sealed. It contained the stomach and intestines of John Parsons Cook. Dr. Rees and I experimented upon them to ascertain if any poison was present. We sought for prussic acid, oxalic acid, morphia, strychnia, veratria, the poison of tobacco, hemlock, arsenic, mercury, and another mineral poison—antimony. We only found small traces of antimony. The parts were in a most unfavourable condition for detecting strychnia—the most unfavourable that could possibly be. The stomach had been completely cut from end to end, all the contents were gone; the fine mucous surface upon which any poison, if present, would be found, was lying in contact with the outside of the intestines, all thrown together. There was feculent matter present from the intestines on the surface of the mucous membrane. The contents must have been shaken about in every possible way. If any poison had been present I should have expected to find it in the contents of the stomach and on the mucous membrane. At my request other parts of the body were sent, the liver, the spleen, and the two kidneys; and a small bottle of blood unlabelled, giving us no idea from whence it was taken. These were delivered to me by Mr. Boycott. We analyzed all these parts. We searched in the liver and kidneys for mineral poison, and we discovered antimony in one-eighth part of the liver. We analyzed the left kidney, and the spleen; they all yielded antimony. The quantity was less in proportion in the spleen than in the other parts. The blood yielded antimony. It was reproduced or brought out by boiling the animal substance in a mixture of hydrochloric acid and water; copper was introduced, and the antimony appeared on the surface. We applied to it various tests, and established the nature of the metallic deposit by tests for that purpose. I produce a small quantity of antimony remaining on the copper. It is impossible to say exactly how long before death the antimony was given. The longest period I have known that antimony has been found in the blood after a person has ceased to take it was eight days. The earliest time I have known antimony to appear after being taken is eighteen hours; in that case it was found in the liver; it was not a large dose, and was not the cause of death; it was a medicinal dose prescribed, about 6 grains of antimonial powder. Antimony is generally given as tartar emetic; it acts as an irritant, and produces vomiting. If repeated doses are given, a portion of it will find its way into the blood and into the system. It is often given in minute doses with impunity; and it may be given so as to produce symptoms which would infallibly destroy life if they continued. I heard the account given by the female servant of the frequent vomiting of Mr. Cook; and also the account given of his vomiting at Shrewsbury; and the account given by Mr. Gibson and Mr. Jones, and the deposition of Mr. Bamford. Vomiting by antimony might cause those symptoms. Tartar emetic is soluble in liquids; it does not affect the colour of the liquid in which it is transmitted, if diffused in small quantities sufficient to cause vomiting. I should think the antimony was given to Cook within two or three weeks of his death; it is impossible to say with certainty. We did not find any quantity dissolved in the fluids of the intestines. It might have been given within a few days before death. What was found in the liver might, I think, have been given within eighteen hours of death. Small doses of antimony, sufficient to cause vomiting, do not affect the taste of water in which they are taken. A large quantity might cause a sensation in the throat—a choking or constricting sensation. I found no trace of mercury in the analysis I made. If a few grains had been taken recently before death I should have expected to find some traces in the liver. If a man had been taking mercury for any syphilitic affection recently before death, I should expect to find it. It is very slow in passing through the body; and if given in large quantity within two or three weeks of death, I should expect to find traces of it in the liver; if given within a few hours I should still expect some in the liver. An amount of 3 or 4 grains would, I think, leave some trace. I recollect a case of 3 grains of calomel being given twenty-four hours before death, and I found mercury in the liver. If a grain was given daily for four days before death, if not vomited, I should expect to find some trace. I attended to the descriptions of death from strychnia described in the evidence. I believe those deaths were occasioned by strychnia. The symptoms of Mr. Cook appear to me to be similar to those of the others described. As a Professor of Medical science, I do not know any other cause than strychnia to which Cook's death could be referred.

Cross examined by Serjeant Shee—A "trace" means a very small quantity. I do not apply the term in the sense of an imponderable quantity. It is so used by some chemists. We collected small traces of antimony from many parts, which in the mass would make a ponderable quantity; in short about half a grain. I will undertake to say that to the best of my judgment there was half a grain. Half a grain would not be sufficient to cause death. Having obtained the antimony on the copper, we tested it in the usual way. Only arsenic or antimony could be deposited on the copper under the circumstances. One inaccuracy in the process, or any impurity in the articles employed, might affect the result; but the materials were pure. The antimony must, I think, have been taken within three weeks. The opinion is formed on the observation of the rapidity with which antimony gets out of the body. I should think it gets out of animals more quickly than out of the human subject. I am acquainted with the works of Orfila, who stood in the highest rank of analytical chemists. Antimony was found in a dog after four months,

according to Orfila. The quantity in that case was 45 grains. It had passed into the bones. The experiments in Orfila's book to which you (Serjeant Shee) allude to are not his own. I do not give an opinion of a case in which 45 grains were given in divided doses to a man. I never knew such a case. In the case to which you refer the antimony had got into the fat and the bones; it was not in the stomach or intestines. So large a dose as this might leave traces after four months. A dog has been poisoned by 6 grains of antimony, when given in small and repeated doses. We cannot decide positively when the antimony gets out of the body. I was first applied to to investigate this case on Tuesday, 21st November, by Mr. Warrington. He did not put me in communication with any solicitor on the occasion. All we could infer from the chemical analysis was, that death might have been occasioned by antimony. What was found in the body would not produce death; but what was found was not all he took. When a man takes antimony some escapes by vomiting; some may escape by the bowels; a great deal passes into the blood by absorption, and is carried out by the urine. In from four to seventeen hours, Orfila says, antimony is chiefly found in the urine. The amount found in a dead body is no criterion of the amount that may have been taken. I think I was perfectly justified in saying that antimony might have produced death. The injudicious or judicious use of James's powder or some other quack medicines might have left the antimony found in the body. We were told that Cook was in very good health six or seven days before he died; hence we were led to suppose that he might have died of the antimony. There was no natural cause to account for death; and finding that antimony existed throughout the body, we drew the conclusion that it was a possible cause of death. I endeavour to procure all information of symptoms, etc., before making analysis. —Before making an analysis you want a long statement of symptoms? Witness—No a short statement will do. I do not rely upon a mere hear-say evidence. Finding only a small quantity of antimony we said Cook might have died of it; if we had found a large quantity we should have said he had died of it. If you spread a large dose over a longer period it will kill the patient. Five of the rabbits killed by strychnine to which I have referred were killed twenty-five years ago. That is all the information, from experiments of my own, which I had when I wrote my book. I have a great objection to destroying life unnecessarily. I do not think that every toxicologist should destroy 100 rabbits to prove facts that are well ascertained. I do not think a rabbit is an unfair animal to experiment upon. Dogs and cats often vomit; rabbits do not. Dogs and cats are rather dangerous animals to handle. [Dr. Taylor's deposition before the Coroner was here read.] I have abstained from all public discussion of the question which might influence the public mind. I wrote a letter to the *Lancet* to contradict some misstatements that had been made. [The letter was put in and read.] Sergeant Shee said he wished to call particular attention to the last paragraph :—"During the quarter of a century which I have now specially devoted to toxicological inquiries I have never met with any cases like these suspected cases of poisoning at Rugeley. The mode in which they will affect the person accused is of minor importance compared with their probable influence on society. I have no hesitation in saying, that the future security of life in this country will mainly depend on the judge, the jury, and the counsel who may have to dispose of the charges of murder which have arisen out of these investigations." Cross-examination continued.—That is my opinion now. It had been stated that if strychnia caused death it could always be found, which I deny. It had also been circulated in every newspaper that a person could not be killed by tartar emetic, which I deny, and which might have led to the destruction of hundreds of lives. I entertained no prejudice against the prisoner. What I meant was, that if these statements which I had seen in Medical and other periodicals were to have their way there was not a life in the country which was safe. Do you adhere to your opinion that "the mode in which they will affect the person accused," that is, lead him to the scaffold, "is of minor importance, compared with their probable influence on society?"—I have never suggested that they would lead him to the scaffold. I hope that, if innocent, he will be acquitted. What do you mean by the mode in which they will affect the person accused being of minor importance?—The lives of 16,000,000 of people are, in my opinion, of greater importance than that of one man. That is your opinion?—Yes. As you appear to put that as an objection to my evidence, allow me to state that in two dead bodies I find antimony. In one case death occurred suddenly, and in the other the body was saturated with antimony, which I never found before in the examination of 300 bodies. I say these were circumstances which demanded explanation. You adhere to the opinion that, as a Medical man and a member of an honourable Profession, you were right in publishing this letter before the trial of the person accused?—I think I had a right to state that opinion in a Medical journal, in answer to the comments which had been made upon my evidence. Had any comments been made by the prisoner?—No. Or by any of his family?—Mr. Smith, the solicitor for the defence, circulated in every paper statements of "Dr. Taylor's inaccuracy." I had no wish or motive to charge the prisoner with this crime?—My duty concerns the lives of all. [Dr. Taylor was here subjected to cross-examination as to his connexion with certain published statements in the *Illustrated Times*, part of which he repudiated, and characterized the whole affair as a caricature of himself] (a). Cook's symptoms were quite in accordance with an ordinary case of poisoning by strychnia. Can you tell me of any case in which a patient, after being seized with tetanic symptoms, sat up in bed and talked?—It was after he sat up that Cook was seized with these symptoms. Can you refer to a case in which a person who had taken strychnia beat the bed with his or her arms?—It is exactly what I should expect to arise from a sense of suffocation. Do you know any case in which the symptoms of poisoning by strychnia commenced with this beating of the bed-clothes?—There have been only about fifteen cases, and in none of those was the patient seized in bed. Beating of the bed-clothes is a symptom which may be exhibited by a person suffering from a sense of suffocation, whether caused by strychnia or other causes. A case has been communicated to me by a friend, in which the patient shook as though he had the ague. Mr. Serjeant Shee objected to this last answer, but as the learned Serjeant had been questioning the witness as to the results of his reading, the Court ruled that the evidence was admissible. Cross-examination continued.—I have known of no case of poisoning by strychnia in which the patient screamed before he was seized. That is common in ordinary convulsions. In cases of poisoning by strychnia the patient screams when the spasms set in; the pain is very severe. I cannot refer to a case in which the patient has spoken freely after the paroxysms had commenced. Serjeant Shee—Can you refer me to any fatal case in which the access of the strychnia affection or paroxysm has been delayed so long after the ingestion of the poison of Cook's case on Tuesday night? Witness—Yes, in my work on Medical Jurisprudence, p. 108, in which a grain and a-half taken by a female, destroyed her in an hour and a-half, and no symptom came on for an hour. I think in that case the strychnia was not taken in pills. [Subsequently it appeared that it was taken in cinnamon-water.] That was noted as a remarkable and unusual case. There is one case in which symptoms did not occur for two hours and a-half. That was not a fatal case. The fatality, however, does not affect the period of occurrence of symptoms. A grain and a-half is a full dose; not a very considerable one. Serjeant Shee—You give a great many cases in your book on poisons—Is there one in which the attack has taken place more than half-an-hour after the ingestion of the poison? Witness—No, but that book is eight years old. There are such cases in my book on Medical Jurisprudence. Dr. Christison mentions a fatal case in which one and a-half grains produced the symptoms not earlier than three hours. The patient had suffered from hemiplegia. I do not know any other fatal case of that kind, in which so long a period as an hour and a-half occurred between the ingestion of the poison and the appearance of the symptoms. Serjeant Shee—Can you refer me to a case of strychnia poison, in which recovery from a paroxysm took place so soon as in Cook's case? Witness—Cook did not recover so quickly. It would depend upon the strength of the dose. Serjeant Shee—He was well before the morning. Witness—There was nothing unusual in that. In a case mentioned in my work, (p. 265,) the convulsions subsided in about four hours from the first attack. Nux vomica was given in that case. It is not so strong as strychnia, but its poisonous effects depend upon the strychnia it contains. It is a

(a) See "Notices to Correspondents," *Medical Times and Gazette*, February 9, 1856.

difficult thing to settle the time of recovery. Medical men do not usually mention the time of recovery in these cases. Serjeant Shee—Can you mention another case of strychnia poisoning in which there was so long an intermission of paroxysms as in the case of Cook between Monday and Tuesday? Witness—No; but I do not suppose that the fit on Tuesday was the result of anything given on Monday. The body is not always very rigid immediately after death. In three of the rabbits the spasms continued after death. I do not know that the body generally becomes immediately pliant after death. It was so in one case that I saw. The four others were quite stiff. Dr. Christison says the bodies are generally flaccid after death; that is according to his experience. The clenching of the hands is the result of violent tetanic spasms. In tetanus it continues; in other convulsions it passes off. The colour tests of strychnia cannot be depended upon unless you get the strychnia in a visible, tangible form.

Re-examined by the Attorney-General—I have read of cases in which the heart has been empty after death. That has been in human subjects. I have notes of three such cases. The emptiness has, I think, been due to the fact that the spasm has reached the heart. If the spasms continue up to the time of death I should expect to find the heart empty. The rigidity after death has been generally confined to the same muscles—those of the limbs and of the back. Where there has been flaccidity after death, rigidity has sometimes supervened while the body is warm. The rigor mortis does not usually come on till the body is cold. I have not known rigidity last so long as two months. That would indicate the occurrence of violent spasms. The action of strychnia would vary according to the strength of the constitution, and other circumstances. Suffocation is one of the symptoms of strychnia. Strychnia would produce the violent action described in Cook's case, on Monday night. The antimony was detected by three distinct processes. I have not the least doubt that the substance was antimony. The quantity found in the body would not be a criterion of the quantity administered. When I wrote the letter to the *Lancet* I had been made the subject of a great many attacks and misrepresentations, not only in the *Lancet*, but in other newspapers. It had been stated that I had said strychnia could not be detected in the dead body. What I said was, that after absorption into the blood, it could not be detected as strychnia.

Dr. George Owen Rees, examined by Mr. James—I am a Physician and Lecturer on Materia Medica at Guy's Hospital. I assisted Dr. Taylor in making the analysis of Cook's stomach. I have heard Dr. Taylor's description of the analysis, and I think it very accurately given by him. The antimony we discovered might, I think, have been taken within a few hours or days of death. The quantity found is no criterion of the quantity administered. We failed to discover strychnia by any test. The stomach was in a most unfavourable condition for the detection of strychnia. The stomach had been cut open and turned inside out, the mucous surface lying rubbing against the intestines. The contents, had there been any, must have been mixed with those of the intestines. This was unfavourable for the discovery of strychnia. I believe strychnia is always absorbed before it produces its symptoms. Strychnia, I believe, might be taken without being discovered after death. It is only the excess that is found in the stomach. I have seen several experiments on rabbits. I saw four of the experiments mentioned by Dr. Taylor. I assisted in the analysis with a view to endeavour to detect strychnia. We failed to detect it in three cases. The symptoms of the animals resembled very much those described at Cook's death. I heard the symptoms of death from strychnia that have been detailed; they appear analogous to the symptoms of the deceased, and to those of the animals upon which we experimented.

Cross-examined by Mr. Grove—The strychnia was administered in pills. The animal was thrown on its back, its legs were secured, the mouth was opened, and the pill introduced. The pill was well taken; there was no ejection in the four cases that I saw. Something appeared to escape in the fifth case. I do not know that the poison has been found in the blood. I have no facts on which I found my opinion that strychnia acts by absorption.

Re-examined—Absorption has been proved to be necessary with regard to most poisons.

Professor William Brande, examined by Mr. Welsby—I am Honorary Professor at the Royal Institution. I had the report of Dr. Taylor and Dr. Rees sent to me for my opinion upon it. I was present at Guy's Hospital on Saturday, the 3rd of May. We examined the action of copper upon a very weak solution of antimony. We found there was no action until the solution was slightly acidified by muriatic acid and heated: the antimony was then deposited. I am enabled to state that the deposit was antimony.

Cross-examined by Mr. Grove—The case which I have alluded to was that of a solution of tartar emetic made for the experiment. I only know of three substances that are thrown down in that way—arsenic, antimony, and, I believe, bismuth. Mercury will deposit without the application of heat, as well as with its application. Lead and tin, I should think, would go down in the cold also. I am not quite certain of that.

Re-examined by the Attorney-General—The tests applied by Dr. Taylor and Dr. Rees were the proper tests for antimony. I have no doubt, from those tests, that antimony was present.

Professor Christison, examined by the Attorney-General—I am a Fellow of the Royal College of Physicians of Edinburgh and Professor of Materia Medica in the University of Edinburgh. I have published a work on the action of poisons in reference to Medical Jurisprudence. I have turned my attention to strychnia, among other poisons. It acts on the frame by absorption into the blood, and then by acting on the nervous system. I have seen a case of the effect of strychnia on the human subject. The case was not fatal. An over-dose was taken by the patient. I have often seen strychnia tried—on frogs, rabbits, cats, dogs, and on one wild boar. I first directed my attention to the poison in 1820, in Paris. It was discovered two years before that, in Paris. In most of my experiments very small doses have been given, but sometimes as much as one grain. The smallest dose I have found to kill a rabbit, by injection into the cavity of the chest, is a sixth of a grain. I have known that quantity kill a dog in two minutes. I have occasionally administered strychnia by the stomach,—never more than a grain. That quantity killed a rabbit. I do not recollect the time in which death occurred. I saw one of the experiments made by Dr. Taylor. He gave about three-quarters of a grain, all of which was swallowed, except a very small quantity. There are very slight differences between the effects of strychnia on dogs, cats, rabbits, etc. The first symptom I have observed has been slight tremor and unwillingness to move; then the animal frequently jerks its head backwards slightly; and soon after that, all the symptoms of tetanus come on, which have been so often described by previous witnesses. There is occasionally a remission of the spasms for a short time. When the poison is introduced into the stomach, the symptoms come on in animals sometimes as late as twelve minutes; death occurs in from five or six minutes to twenty-five minutes after the symptoms have appeared. The symptoms have been very uniform. The jaws and back are almost always affected first, then the trunk and extremities. There are sometimes differences in individual cases—there being occasionally scarcely any intermission, the animal dying from one continuous spasm; that, however, is uncommon. There is commonly a remission of symptoms just before death. The animals I have seen have died quietly. When the body becomes flaccid after death, the rigidity is frequently renewed; I have not attended to the duration of the rigidity. I have frequently opened the bodies of animals killed by strychnia. I never could see any effect on the stomach or intestines, nor any in the spinal cord or brain which could be traced satisfactorily to the poison. The heart generally contained blood. I have not found it empty in animals; others have found it empty. In the case of the overdose to which I referred, there was a fixing of the jaw, spasmodic retraction of the head, a slight grinning expression of the mouth, slight stiffness of the arms and fingers; great alarm; no convulsions of the trunk or limbs. I should expect the poison to take a longer time in producing its effects in the human subject than in smaller animals. The wild boar was injected by the chest. The animal died in ten minutes, from a third of a grain. In the human subject the poison, in the shape of nux vomica, has sometimes not operated for an hour; when given as strychnia the effects are generally more rapid. That would depend, however, on the mode in which it is given. It is generally given in a solid form. It would also depend on the materials with which the poison is mixed, supposing it to be given in

the form of pills. Some materials might retard the appearance of the symptoms, such as resinous materials and materials difficult of digestion. Some resinous substances are used for making pills. Absorption would begin when the pill began to be broken down or digested. I do not think with our present knowledge we can fix the precise time at which the symptoms would come on in a human subject. In administering the poison to animals we do it under favourable circumstances. We give it in a liquid form; we inject it, so that it may act rapidly, and we take care that the animal is fasting. I have seen many cases of tetanus arising from wounds, very few arising from natural diseases. The symptoms of ordinary tetanus and the tetanus of strychnia are similar, but their course is different. In the ordinary forms of tetanus the symptoms begin and advance much more slowly, and they prove fatal much more slowly than in the tetanus from strychnia. There is no intermission in certain forms of natural tetanus. There are short intermissions in tetanus from strychnia. I have heard the descriptions of Cook's symptoms on the Monday and Tuesday. I should refer them to strychnia, or to one of the natural poisons, nux vomica, St. Ignatius's bean, or snake wood; they all belong to the genus strychnos. There is no natural disease to which I could refer the symptoms. Consciousness remains as long as one can make an observation upon it. When an animal is in a strong state of universal spasm it is impossible to make an observation of the consciousness. The condition of the heart after death varies in particular cases, depending upon the mode of death. In some cases death takes place by spasm of the heart, which is then emptied of blood. I should not expect to find strychnia after death where the quantity administered has been small. Where there is a considerable excess over the quantity required to destroy life I should expect to find it. I think the colour-tests are uncertain. Vegetable poisons are more difficult of detection than mineral. There is one poison for which I know no test. I have heard Dr. Taylor's description of the stomach of the deceased. It was in a very unsatisfactory condition for chemical analysis. There must have been a considerable quantity in the stomach beforehand to have been detected under the circumstances. The symptoms of Cook appear to have been very similar to those of the other persons mentioned as having died of strychnia.

Cross-examined by Mr. Grove—The experiments I made some years ago were before the colour-tests were known. I have made one experiment upon a man who was poisoned by strychnia, but failed to detect any. Lord Campbell—When did the case occur? Witness—In 1851. The test I employed was the sulphuric acid and oxide of lead for the production of the violet colour. I did not try the bichromate of potash or manganese. I do not know that the man had strychnia from my own knowledge.—Mr. Grove submitted that the witness should not give particulars of the case as he did not know the particulars personally.—The Attorney-General said, if that case was excluded he should object to references being made to any case from the Medical books. The case was as relevant as any case mentioned by Orfila.—The Court ruled that the particulars might be given. Cross-examination continued—In my work I leave the question open whether death does not occur sometimes by the spasm of the heart and sometimes by asphyxia. A great deal of additional information has been acquired since my book was published. In the animals I have examined there was blood in the right cavity. My book states that the effects sometimes continue for twelve or sixteen hours in a milder form. I have known the effects cease in a shorter time. I state in my book that flaccidity usually occurs at death, and that rigidity supervenes. I think there is usually an interval of flaccidity, though it may often be overlooked. Very close observation is required in these cases. In animals, a touch (unless it is very gentle) often brings on the spasms; it has not been generally noticed or mentioned in human beings. The bitter taste of strychnia is said to be very strong. It is said that one part in 80,000 would be sufficient to affect the whole with a bitter taste. That is stated by the gentleman who discovered the poison. The effect of the poison would take place more quickly if given on an empty stomach. The substances of which the pill was composed might not be detected in the stomach, but might pass off in the intestines. The resinous substances might prevent for a time the absorption of the poison into the blood, and render it more probable that some portion would be found in the stomach.

Re-examined by the Attorney-General: That would depend partly upon the dose. The case of the man to whom I referred as having died of strychnia is reported in the *Journal of Medical Science*. A gamekeeper was found dead, after being four days missing; the head was thrown back, the hands were clenched, and the muscles rigid; a paper of strychnia was found in his pocket, and I found in the contents of the stomach indications of strychnia sufficient to satisfy me, under the circumstances, as to the cause of death. I employed the process employed by Dr. Taylor; I obtained an extract strongly and enduringly bitter, and which became yellow by nitric acid, but did not give the indications of the other colour-tests. The man was in the habit of using strychnia for killing rabbits. The colour-tests are not to be relied upon where the strychnia is impure; and the tests may be fallacious even when it is pure, as other substances not containing strychnia present similar appearances. I was not aware of these fallacies till they were pointed out to me by Dr. Taylor.

Dr. John Jackson stated that he had practised as a Physician twenty-five years in India, where he had witnessed many cases of idiopathic and traumatic tetanus. The former was much more common than in this country, and was, he believed, as fatal as the latter, sometimes attacking children three days after birth, and women after miscarriage or parturition. In children about forty-eight hours intervened from the attack till death; in adults, the interval was longer, and might continue many days. The appetite was not much affected, but the patient complained of stiffness about the neck and jaw. He never saw a case terminate fatally in twenty minutes or half an hour.

Mr. Bamford, the Surgeon, was also called, and stated the circumstances under which Palmer obtained the pills from him; but he was not allowed to enter into the question of Cook's symptoms, those having been described in his deposition before the Coroner, which had been read at a previous stage of the trial.

A number of other witnesses were then called and examined with reference to the prisoner's bill transactions and his alleged frauds on the insurance companies, all tending to show that his affairs were greatly involved, and that there was a constant pressure upon him for money.

THE DEFENCE.

Serjeant Shee, in opening for the defence, referred to the deep responsibility resting on him as an advocate, to the amount of prejudice which had been excited, and to the steps taken by the Crown in order to secure to the prisoner as fair a trial as they could under the circumstances. The learned serjeant made a strong asseveration of his conviction of the innocence of the prisoner, and said, "I will give you this proof of the sincerity with which I declare, upon this evidence, my conviction of his innocence, that I will meet the case for the prosecution foot to foot at every stage; that I will grapple with every difficulty which has been suggested by my friend the Attorney-General; that you shall see that I avoid no point because I fear to approach it." The learned counsel then observed upon the fact which he said had been too much concealed by the Attorney-General—that strychnia had not been found in the body of Cook, which fact he said would constitute the case for the defence. "The gentlemen who have come to the conclusion that strychnia may have been there though they did not find it, have arrived at the conclusion from experiments of a very partial character. They contend that strychnia is of that nature that when once it has done its fatal work and become absorbed into the system, it ceases to be the thing which it was when it was taken into the system—that it becomes decomposed, that its elements are separated from each other, and therefore that it is no longer capable of responding to the tests which, according to them, would certainly detect the poison of undecomposed strychnia. I will call before you many gentlemen of the highest eminence in their Profession among Chemists to state to you their utter renunciation of that theory. All of these gentlemen contend, and are ready to depose on their oaths, not only that half a grain, or the fifth part of a grain, might be, they are bold to say, discovered, but that if five, or ten, or twenty times less than that quantity had entered into the human frame it could be, nay, must be, detected, on the application of proper and efficient tests for the purpose. I will thus satisfy you that the only safe conclusion at which you can arrive is this—that it being shown to you that the proper tests were applied, and that no strychnine was found, the proper inference, the inevitable in-

ference under the circumstances of this case, is, that strychnia could never have been there. If we find that they all agree that no amount of putrefaction or fermentation could, in their judgment, in the human system, so decompose the poison strychnine as that it should no longer possess those poisonous qualities which, in its undecomposed state, respond to the tests, I shall rely on your verdict being in accordance with such their sworn opinion. The learned Serjeant next alluded to the alleged motive of Palmer in poisoning Cook, which he endeavoured to meet by arguing, on the assumption that Palmer and Cook were partners in turf matters, that the prisoner being so surrounded with difficulties which he could not alone contend against, was the more interested in the life of Cook, the latter having more than once made himself useful to the prisoner; and that the actual effect of Cook's death was to increase the prisoner's liabilities. Counsel then referred to the books which had been produced belonging to Palmer, but as this evidence was ignored by the learned Judge in his summing up, it needs no further reference here. I now (continued the learned Serjeant) proceed to the question, whether the symptoms of poisoning during life, and the appearances presented by the body after death, were consistent with the theory of Cook's having died by strychnia poison, and inconsistent with the theory of his having died from other and natural causes. Now for this purpose let us briefly, in a sentence or two, run over the facts connected with the death of Cook. This the learned Serjeant did, bringing his very succinct narrative down to the period when Stevens, the father-in-law, told Palmer he suspected him of foul play, and intended to probe the matter to the bottom; and then he proceeded:—A post-mortem examination took place; the appearances which were presented on the body of Cook were such as might have been expected by those acquainted with his former life, with the state of his health, with his drinking habits, his racing pursuits, and with the weakly constitution which he inherited from his parents. These appearances the learned Serjeant detailed, dwelling particularly on the fact that Cook was found to have been suffering from a sore throat, with diseased tonsils, one being reduced in size, while the other had nearly vanished, and that he bore traces of venereal disease. When the body was opened there was found on the arachnoid membrane, and imbedded in the covering which is above it, the dura mater, traces of disease. I shall satisfy you by men competent to inform you, that if the body had been opened in the dead-house of any metropolitan hospital, that would have been said to have been the cause of death; and I am told that this was only partially discovered on the post-mortem examination which took place at the desire of the friends of the deceased; that the examination was not conducted with that activeness of determination to investigate the whole matter which was afterwards thought necessary. The brain was then opened in order to look for disease; but, as I understand, the spine was not examined much below the junction with the head, and its appearances were not ascertained. The stomach was taken out; and you have heard the story about Palmer having pushed somebody against a jar; but this was a suggestion which came to nothing. Serjeant Shee then proceeded to impugn the testimony of Dr. Taylor, on the ground that, before analysis, he had formed an opinion on the evidence of chambermaids, etc., against the evidence of the Medical attendant, that Cook had been poisoned, not by antimony, as he first said, but by strychnia. It has been attempted to show that the disease of which Cook was said to have died was not traumatic tetanus, and therefore that it was strychnine tetanus. I think it is not clear that it is tetanus at all. That Cook died from convulsions, I believe; but what pretence is there for saying that they were tetanic at all? The learned Serjeant proceeded to express his dissent from the conclusion drawn on the other side, that the convulsions were tetanic, and that because they were neither traumatic nor idiopathic, they must be produced by strychnia; and further urged that it was not incumbent on the defence to adduce a better theory of Cook's death than that of the prosecution, if they succeeded in demolishing that theory by a complete negative. He read a portion of the deposition of Elizabeth Mills before the Coroner, describing the symptoms on the Monday and Tuesday night; and the deposition of Mr. Jones. He also read the statements of Mills and of Mr. Jones before the Coroner, of the symptoms which they observed in Cook on the Monday and on the Tuesday night, and having done so, he submitted on authority which could not deceive them, whether those symptoms might not more properly be accounted for by convulsions which were not tetanic, and certainly not tetanic in its distinctive character of strychnine tetanus, but by those general convulsions by which it sometimes pleased Providence to strike a man down. They would find that it frequently happened that a man in the prime of life was struck down by convulsions, the cause of which left not a trace in the body. He had to submit that the symptoms described by Elizabeth Mills and Mr. Jones were such as to render it entirely unnecessary to resort to tetanus of any kind. They would remember the constitution of this young man, and the evidence of functional derangement. He should submit, on authority in matters of this kind, that it was more probable that Cook died of general convulsions, not tetanus, than that he died of tetanic convulsions. Let them now consider what was the state of Cook's mind. He went to Shrewsbury races in the imminent peril of coming away a ruined man. He had been raising money at enormous interest, and he had no property except two race-horses, Polestar and Sirius, and they were mortgaged. He hoped that Polestar would win, as he would thereby obtain the stakes, worth about £350, and would also win to the amount of £600 or £700 by the bets that he had made upon the race. At length it commenced, and his horse won easily. He was the winner of £1000, and what effect had that upon him? Jones told them that he was unable to speak for three minutes. He was saved not merely in purse, but in character. After he had to some extent recovered himself, he went back to the inn in a state of elation. He entertained his friends. It did not appear that he drank to excess, but it was a champagne dinner. They knew that what was called a champagne dinner was a luxurious entertainment at which there was no stint. That evening he did not spend in the company of Palmer, and it was not clear in whose company he did spend it after the dinner was over. But they found him the next evening at the Unicorn, with Saunders, the trainer, and a lady. Counsel then gave a narrative of the subsequent events, very much in the terms of the previous evidence. Palmer had Cook to himself from three to seven o'clock. Part of the suggestion of the prosecution was, that Cook thought Palmer had played false with him at Shrewsbury, and that he had a design upon him; but it did not appear that anything was said by Cook, or that anything occurred to raise a suspicion in the mind of Mr. Jones, and so much was that so that at the consultation that took place between seven and eight o'clock, between Mr. Jones and Palmer and Mr. Bamford, as to what should be the medicine for that night, it did not appear that the attack on Monday night was even mentioned. In reference to the pills, the learned Counsel said—Palmer, in the presence of Jones, brought up two pills, which were supposed to have poisoned Cook, and which contained a substance that sometimes did its work in a quarter of an hour, and sometimes even less, and now they were asked to believe that Cook, in the presence of Mr. Jones, objected to them, and that Palmer positively forced them into his throat, at the imminent peril of the man falling down dead like the rabbit they had heard of. The depositions of Mr. Jones on the symptoms of Cook were here read by Counsel, upon which he observed:—The word "tetanus" was not in the depositions. It was very remarkable, and showed how, when people got a theory into their heads, they would fag that theory, and stretch it to the uttermost. Mr. Jones was a competent Professional man, and it was quite clear that something like tetanus must have entered his mind, because the clerk had put down "tetinus." Probably Mr. Jones used it, and the clerk, who had perhaps never used the word before, mis-spelt it, but he corrected his evidence, and the word was struck out. First the term used was "strong symptoms of compression." That was struck out. Then the word "tetinus" was inserted, and that was also struck out, and then the words "violent convulsions" were substituted. What was the fair inference from that? Why that the man who saw Cook in the paroxysm did not think himself justified in saying it was tetanus at all. It might have been very like it in some of its features, but it was not tetanus. Serjeant Shee then read from Dr. Copland's "Dictionary of Practical Medicine" a long definition of general convulsions, and their diagnoses, in which he described the premonitory symptoms as restlessness, unsound sleep, nausea, hypochondriasis. They, however, followed no certain course, and the modifications were numerous. Death occurred from the compression of the muscles of the respiratory

organs. The causes of the disease were agitation and all emotions of the mind which excited the nervous power and determined the blood to the head. Did they, the learned Serjeant asked, believe that if Dr. Taylor had read that before the inquest, he would have said this man died of strychnia poison? There was not a single symptom described in the evidence of Elizabeth Mills and Mr. Jones which Dr. Copland did not describe as occurring in general convulsions. He should call men of the highest eminence in their Profession, not mere Surgeons of Hospitals, who never saw anything of tetanic e that was not of the traumatic kind. Before he went into that point, however, he would call their attention to the symptoms of traumatic tetanus. His belief was that the complaint Cook died of was not tetanic at all, and that as regarded many of the symptoms there was no general distinction between traumatic, idiopathic, or strychnia tetanus, and many forms of convulsions. The learned Serjeant then read an extract from a work by Dr. Watson, describing the forms and causes of traumatic and idiopathic tetanus. Might not, the learned Serjeant asked, the symptoms described by Elizabeth Mills and Mr. Jones come under one of these forms of tetanus? He now came to the question whether, if the symptoms were tetanic, they were of that form that was produced by strychnia. Dr. Taylor, in his work on strychnia poison said, "In from five to twenty minutes after it has been swallowed the patient is suddenly seized with tetanic symptoms, affecting the whole of the muscular system, the body becoming rigid, the limbs stretched out, and the jaw so fixed that considerable difficulty is experienced in introducing anything into the mouth." But in this case Cook was beating the bed-clothes, asking for Palmer, and ready to swallow whatever was given to him; and the paroxysm, instead of being from five to twenty minutes after the poison was said to have been administered, did not begin for an hour and a-half. Dr. Taylor went on to say that the body became arched, and after several attacks increasing in severity the patient died of asphyxia, or exhaustion. Now these were not the symptoms of Cook. Dr. Christison, describing the effects of strychnia, said, "The animal was seized with a starting of the limbs; respiration became checked by a fixing of the jaw. The fit is then succeeded by an interval of calm, during which the senses are entire and unnaturally acute; but another paroxysm soon sets in, and then another and another, till at length the fit takes place more violent than before, and the animal perishes." It was only just to say that the description these gentlemen gave of the effect of strychnia was, in the main, correct, because there was a gentleman present who would state the experiment which he (Serjeant Shee) saw himself, and which was made on a dog during the course of the proceedings. The symptoms would vary in intensity. If the attack was not a strong one, and the intervals became greater, they would become less violent, and the animal would recover; but if the interval between the paroxysms was short, and the symptoms were violent, the animal would die. The limbs of this dog just before it died became as supple as it was possible to conceive; but when the animal was quite dead, after a time the rigor mortis came on, and the limbs were quite stiff. He believed there was no case in the books in which the patient, while the paroxysm lasted, had so much command over the muscles of animal life and voluntary motion as Cook had on the Monday and the Tuesday night. So far from being afraid of any one touching him, he asked to have his neck rubbed, and it was rubbed. But this was not a case of strychnia tetanus. The cases in the books showed that in such cases death took place more rapidly than in this. He would prove that there was no case known in which recovery from a paroxysm of tetanus caused by strychnia had been so rapid as in Cook's case on Monday night, or in which a patient had enjoyed so long a repose afterwards. On the theory of the prosecution the second attack would not have come on at all if a second dose had not been given. There was an end of it on the Monday night when Elizabeth Mills went to bed, and left Palmer sitting in the easy chair in the room with his friend. How easy it would have been for him, if so disposed, to have given him another dose, called up Elizabeth Mills, and said he was in another fit, the dose killing him on the spot, without any suspicion. Dr. Taylor said a person who has taken strychnia poison "is suddenly seized with spasmodic symptoms, and, after several attacks, the patient dies of asphyxia." He submitted that there was a broad distinction between these symptoms and those of Cook. He now came to another feature of the case—the post-mortem symptoms. He was told—and that certainly was the case with regard to the animal he saw killed, and Dr. Letheby was kind enough to have dug up from his garden a rabbit which had been killed by strychnia a month before, and it was the case with it, that the heart was full. He was told, however, that if the examination were conducted in a clumsy way—if they opened the head first, and cut through some of the large arteries of the head and the throat—the blood in the heart would escape. He should prove that the hearts of animals killed by strychnia were invariably full. The strong point made by the prosecution was by the evidence of Elizabeth Mills. He was reluctant to impute perjury to a witness, but he thought it not improbable that the witness had been talked to by other persons, and had stated what she believed to have been the case, but which was in reality the impression on her mind produced by the conversations of others. There was a discrepancy in the evidence of Elizabeth Mills, which made it perfectly clear that they could not rely on her testimony. In her evidence before the coroner she said that on Saturday Cook had coffee for breakfast, that he ate nothing, and that he vomited directly he had swallowed it. She added, "Up to the time I had given him the coffee I had not seen Palmer;" but when she came here she said that Palmer ordered him some coffee in the morning, and that she gave it into Cook's hands, but did not see him drink it, and then she said, "I observed afterwards that he had vomited it." She was aware that it was part of the case for the prosecution that antimony might have killed him. These two statements were essentially at variance, and he put it to the jury, if they could rely on a woman who had altered her testimony to such an extent? That was not all. The case for the Crown was, that Cook was reluctant to take the pills, and that Palmer overruled him. In her statement before the coroner, Cook said it was the pills that Palmer made him take at half-past 11 o'clock that made him ill; when she came here, she said the time was half-past 10 o'clock; thereby fixing the fact that Palmer gave the pills. He was told by Dr. Letheby and some other gentlemen that the descriptions which she gave in Court of the symptoms of Cook were inconsistent with any known disease. In February or March a fearful case of strychnine tetanus occurred at Leeds, in which a person was supposed to have administered day by day small doses of strychnia, so as not at once to kill, but gradually to destroy life. The person who attended that patient spoke of symptoms which she exhibited which were quite different from those of Cook. They would learn that the case which the witness described was not a case of tetanus. The learned Serjeant then proceeded to deal with some minor matters which had been brought forward, *e.g.*, Palmers reference to his dressing so quickly when sent for by Mills; his pushing the parties who were making the post-mortem examination; the removal of the jar to a corner of the room; the statement of Myatt, the post-boy; the purchase of the three grains of strychnine; the tampering with the brandy-and-water at Shrewsbury,—all of which points counsel endeavoured to deny, to meet, or offer explanations for, and then proceeded:—"They got to Rugeley, where the history of the slow poisoning began. They provided for temporary difficulties by sending up £200; being on friendly terms, Palmer made use of Cook and Cook of Palmer, both probably having their own objects in view. Cook went to bed late that evening; he had a little champagne, but not enough to make him drunk. He got up the next morning; and the next morning Palmer called in Mr. Bamford, and requested him to attend on Cook; and was it to be said that because Palmer was attentive to his friend, and devoted himself to him, that he intended deliberately to destroy him? Mr. Bamford saw him again on the Sunday in the morning at ten o'clock, and again at six or seven in the evening, when Cook told him that his bowels had been moved twice or thrice; and on that same day Palmer wrote to Mr. Jones that Cook was suffering from diarrhœa. The next important fact in this case was one which seemed to him to decide the case, if there was nothing else. That was the sending for Mr. Jones, Cook's intimate friend, and who was, moreover, a Medical man, and who would therefore at once see whether there were any symptoms indicative of poison. The prisoner's sending for him to stop with the deceased was an irrefragable proof of his innocence. The learned counsel then referred to Stevens's evidence in detail, and contended that the non-finding of the betting-book was not a circumstance to warrant suspicion against

the prisoner; and after an irrelevant allusion to his feelings towards his wife seven years before, Serjeant Shee concluded as follows:—Upon the evidence before you I cannot believe him to be guilty. I call upon you to raise your minds to a capacity to estimate the high duty you have to perform. You have to stand the brunt of prejudice; you have to vindicate the honour and the character of your country; you have, no doubt, with fearless courage to do your duty and to find a verdict for the Crown if you believe that guilt is proved; but if you have a doubt upon that point, you will rejoice to find him innocent; and depend upon it the time will come when the innocence of this man will be made apparent, and when you will deeply regret any want of due and calm consideration of the case which it has been my duty to lay before you.

The first witness for the defence was Mr. Thomas Nunneley, who said:—I am a Fellow of the College of Surgeons of England, and Professor of Surgery at the Leeds School of Medicine. I am also a member of several English and Foreign learned and Medical Societies; and I have been in practice between twenty and thirty years. I have seen cases of traumatic and idiopathic tetanus, four of the latter. They did not all commence with lock-jaw. One did not commence so; nor did lock-jaw become so marked in it as to prevent swallowing once during the course of the disease. I have heard the evidence adduced with regard to the symptoms of the deceased Cook, and am of opinion that his death was caused by some convulsive disease. I assume him to have been a man of delicate constitution, and that for a long period he felt himself to be ill, for which illness he had been under Medical treatment; that he had suffered from syphilis, that he had disease of the lungs, and old standing disease of the throat, that he led an irregular life, that he was subject to mental excitement and depression, and that, after death, appearances were found in his body which showed this to have been the case. There was an unusual appearance in the stomach, and the throat was in an unnatural state. The back of the tongue showed similar indications. The air vessels of the lungs were dilated. There was an unnatural deposit in the lining of the aorta, and an unusual appearance in the membranes of the vessels of the spinal cord. The scar on the penis could have resulted only from an ulcer. A chancre is an ulcer, but an ulcer is not necessarily a chancre. The appearances at the root of the tongue and throat, I should ascribe to syphilitic inflammation. Supposing these appearances and symptoms to have been correctly described, they would render him liable to nervous irritation. Moral causes, or any excitement, might produce that effect. A person in such a state would be more susceptible of injury from wet and cold, and of convulsive disease, than one with a stronger constitution. It is said that Cook had three attacks on successive nights, occurring about the same hour, which seems to indicate that their character was convulsive. I infer that, in the absence of any other satisfactory explanation. Convulsive attacks are as various as possible in their forms and degrees of violence. It is not possible to give a name to every convulsive symptom. There are some forms of convulsion, and it is said also of epilepsy, in which the patient retains his consciousness. I have known no case, however, in which consciousness has been retained during the fit. I know by reading that that does sometimes occur, though but rarely. The degree of consciousness in epilepsy varies very much. Occasionally it is for a long time wholly lost. Convulsions are sometimes accompanied by violent spasms and rigidity of the limbs; being sometimes of a tetanic form. They arise from almost any cause, from worms in children, from affections of the brain in adults, from hysteria, and sometimes from the administration of chloroform, as also from affections of the spinal cord and eating indigestible food. I know no instance in which they have been caused by retching and vomiting. I agree with Dr. Copland that these convulsions sometimes terminate fatally. The proximate cause of death is often asphyxia. Death from spasm of the heart is often described as death by asphyxia. I have seen convulsions recurring at various intervals, sometimes of hours and sometimes of days. A patient may recover from violent convulsions in a few minutes; sometimes it may be hours. It sometimes happens, when death takes place from convulsions, that no trace of disease is found. Granules between the arachnoid and the dura mater are uncommon. Lord Campbell—Do you form any opinion as to the cause of death from the appearance of these granules? No. By Serjeant Shee—They might produce an effect on the spinal cord. There are specimens in the museums of granules in the spinal cord in which the patients are said to have died from tetanus. I have seen them at St. Thomas's Hospital. In order to ascertain satisfactorily the extent of injury arising from such granules, the spinal cord should be examined immediately. No opinion could be formed if the examination were delayed two or three months, more especially if the brain had been previously opened. Independently of the granules in question, it would not be possible after that time to form any opinion as to the condition of the spinal cord. A large tumour, if it existed, might be observed, but not a mere softening or induration. To ascertain the minute structure of the nervous system sometimes requires the aid of a lens; it is required where the examination takes place immediately after death. I have attended cases of traumatic tetanus. I agree with the opinion that has been expressed, that it generally commences with lock-jaw. I have seen four cases of idiopathic tetanus; one was my own child. In three of them the disease began with lock-jaw; the fourth commenced in the body, the power of swallowing remaining. Within the last twelve months I have made two post-mortem examinations of persons who died from strychnia. I found the strychnia in both cases. One case was that of a lady 28 years of age; the body was examined forty-two hours after death. In the other case thirty hours elapsed before the examination. In the first case, the body had not been opened before I commenced my examination. [The notes of this examination, and also of the examination in the other case, were read by the witness. It was stated that, in the first case, the eyelids were partially open, and the pupils dilated; the muscles of the trunk were soft, and could be bent in any direction; those at the hip and shoulder-joints were not so soft, but they allowed those joints to be easily moved; the muscles of the head and neck and fore-arms were rigid. The feet were somewhat arched, and the fingers curved. The muscles were dark in colour. The membranes of the liver were vascular; those of the spinal cord much congested. The pericardium contained bloody serum; the lungs were distended, and the air-cells ruptured. The lining membranes of the trachea and bronchial tubes were covered with a layer of bloody mucus of a dark chocolate colour. The thoracic vessels and membranes were much congested; the blood was dark and fluid. In the second case, the appearances were very similar.] In two other cases I have seen a patient suffering from over-doses of strychnia. Neither of them was fatal. In one case I had prescribed the twelfth of a grain in solution; but the patient, a man of middle-age, took double that quantity. The symptoms appeared in a few minutes: a want of power to control the muscles, twitchings, rigidity, and cramp, most violent in the legs. The spasms were not very violent; they disappeared in six hours; they were intermittent at various intervals. As the attack passed off, the length of the intervals increased; at first they lasted but a few seconds. I have experimented with strychnia upon more than sixty animals,—dogs, cats, mice, rats, guinea-pigs, toads, and frogs. The symptoms have appeared in from two to thirty minutes—generally five or six. I gave the poison occasionally in solution, but generally solid. I have applied it direct to the spinal cord, and in other cases to the brain. The first symptom has been a desire to lie still; then hurried breathing; then slavering at the mouth (if the poison has been given by the mouth); then twitching of the ears, trembling of the muscles, inability to walk, convulsions of all the muscles; the jaws being usually firmly closed. The least touch, or sometimes an attempt to move, would throw the animal into violent spasms like galvanic shocks; the animal can sometimes move without a recurrence of spasms. Death takes place in from three hours to three hours and a-half. Where the animals live longest the intervals between the spasms are the longest. In the interval before death rigidity always ceases, and the muscles become flaccid. I know no exception to this. There is but little difference from ordinary cases of convulsive death in the time at which the rigor mortis comes on. I have killed animals with other poisons, and there is very little difference between the rigidity in their cases and that in the cases of death from strychnia. In the two females I have mentioned the rigor mortis was less than in death from natural disease. The symptoms to which I have referred occurred in the order which I have mentioned before the convulsions came on. I have known

an interval of half-an-hour between the paroxysms. I have found the heart invariably full on the right side, and very generally the left ventricle firmly contracted, and the blood usually dark and fluid; there is no particular appearance observed in the spine. I have experimented with poison upon more than 2000 animals, and I have written on the subject. When an animal is poisoned, the blood is often fluid after death, but not generally. That happens also in cases of sudden death from other causes. I have attended to the evidence of the symptoms of Cook on the Monday and the Tuesday night, and the Sunday. He was in a state of great excitement on Sunday night; he described himself in such a state as to be mad for two minutes. He said he was excited by a noise in the street. The symptoms do not resemble the symptoms I have seen produced by strychnia. He had more power of voluntary motion than I have seen in animals under the influence of this poison. He sat up in bed, and moved his hands about freely, and could swallow and talk, and he asked to be rubbed and moved That makes me believe there was a greater power of voluntary motion than is consistent with poisoning by strychnia. Then the convulsions came on suddenly without the usual premonitory symptoms; a long time elapsed between their commencement and the time of taking the pills; and Cook screamed and vomited. These, in my opinion, are not consistent with strychnia poisoning. I never knew an animal that had been poisoned to scream voluntarily. I apprehend, where there is so much spasm of the heart there is inability to vomit. There have been cases where emetics have been given to produce vomiting without success. The appearances at the post-mortem examinations I have made in cases of strychnia poisoning differ materially from those described in the case of Cook.—Lord Campbell: In what respect? Witness—The heart seemed to be empty and uncontracted. Lord Campbell—I understood that the heart was contracted. Baron Alderson: Dr. Harland said the heart was contracted and contained no blood. Examination continued—The lungs were not congested, nor was the brain congested. I never knew a severe paroxysm followed by an interval of twenty-four hours' repose. I have experimented upon animals with a view of discovering the strychnia poison in various periods of decomposition, up to the forty-third day. The body has been in rare cases quite putrid.—Has it ever happened to you, where you had certain knowledge that the animal was killed by strychnia, to fail, within the limit you have mentioned, to discover the poison by tests? In no one case. I have experimented in about fifteen cases.—Suppose a person to have died from strychnia immediately after the first paroxysm, and the stomach to be taken out of the body and put in a jar on the sixth day after death, must strychnia be found in the body by proper analysis? Yes; if it had been there.—Serjeant Shee—What tests do you use? First extract it from the other matters with which it is mixed; place the contents into acidulated water; boil a short time and filter; neutralize with an alkali, lime, and potash; evaporate; dissolve with spirit or ether; evaporate the alcoholic extract; then you have strychnia, which will crystallize in such a way as to enable you to apply the test. What is the test?—If it is common commercial strychnia, such as is almost invariably found among Medical men and Druggists, the test is nitric acid, which gives a red colour, which disappears on the addition of protochloride of tin. If the strychnia be pure it does not undergo any change on the addition of sulphuric acid, but on the addition of bichromate of potash, it produces a beautiful purple, which changes to varying shades, until it gets to be a dirty red. There are several other tests. The removal of the jar to London, and the fact of the stomach being turned inside out, and lying against the intestines, would give a little more trouble in detecting the strychnia if it were present, but nothing more. If death were from strychnia it ought to have been found in the liver, spleen, and kidneys. I have seen it in corresponding portions of animals killed by it. I have seen it detected in the blood by Mr. Herapath. If pyroxanthine and salicine were in the blood, they would not defeat the analysis. Pyroxanthine is most unlikely to be found in the stomach; it is a most rare substance, and difficult to be obtained. It cannot be mistaken for strychnia. Pyroxanthine changes to a deep purple on the addition of sulphuric acid alone, and the bichromate of potash spoils the colour. If death were caused by a dose not more than sufficient to destroy the animal, I do not think absorption would take place in such a way as to prevent its detection. That question has been previously a subject of consideration with me; it has been a subject of discussion among toxicologists. Strychnia, I believe, continues as such in the system. Those who take a contrary view say that the poison changes like the food. The change in food, however, takes place during digestion; but substances like strychnia are absorbed without digestion, and they may, therefore, be obtained unchanged from the blood. These substances may be administered in various ways. No amount of putrefaction, within reasonable bounds, would prevent the discovery of strychnia. To say that strychnia is absolutely indestructible would be to say too much; I have found it after forty-two days. The more empty the stomach the quicker the action.

Cross-examined—I am Lecturer on Surgery at the Leeds School of Medicine. Mr. Morley is Lecturer on Chemistry. Some of the experiments upon the sixty animals were made jointly by Mr. Morley and myself. There was nothing to distinguish the experiments which I made alone from those which I made with him. The general results in all were pretty much the same. My experiments have extended over thirty years. The greater part of the joint experiments have been made since the case occurred to which reference has been so frequently made. The general dose I have given has been from half a-grain to two grains. I have found half a grain sufficient to destroy the life of a dog or cat—not always. Some animals are more susceptible than others; I refer both to individuals and to species. There is a greater difference between species. The symptoms have not, in the cases I have seen, been delayed so long as an hour. I have known cases in which the dose has had to be repeated. That has happened in the case of the cat. There were symptoms of spasms, but the animal did not die. The cat, however, did not swallow those doses. I have known cats killed by half a grain—young cats, not generally old ones. Half a-grain, I think, in the solid state, would be the minimun dose to kill a strong old cat. Less, I think, would kill if the poison were dissolved. Among the first symptoms is indisposition to move, and difficulty of breathing; twitching; then come the convulsions.—Are these symptoms uniform in all animals, or is there a diversity in the intervals in which they present themselves and the order in which they are exhibited? I have not observed much difference in the order, but I have in regard to the time. One animal will die with fewer convulsions than another. It seldom dies after one; generally there are three or four. I have known one or two instances of death after one convulsion. That has been from a dose equal in quantity to a dose which at other times has not produced the same effect. The order of the convulsions of the different muscles sometimes varies. The limbs are generally affected first. The twitchings of the extremities appear to occur first; but that may be from the fact that they are more readily observed. I have known instances in which animals have been very rigid, but not more so than from other causes. I think there is no rigidity peculiar to strychnia. In the Leeds case the feet were not arched or the head curved more than might arise from natural causes. There was muscular contraction, but not an unusual amount.—Now Mr. Nunneley, in the face of the Medical Profession, I ask you, when you said in your report that the hands were curved and the feet arched by muscular contraction, do you mean to say, that you meant no more than was due to the ordinary rigidity of death?—I do. I heard Mr. Morley's evidence with regard to experiments on animals. I do not agree with his statement, that after death there was an interval of flaccidity, after which rigidity commenced, more than the usual rigor mortis. I generally found the right side of the heart full. Among other things, the fact of the heart in Cook's case having been empty leads me to think that death was not caused by strychnia. I am aware it is stated that the hearts of Agnes Sennett and Mrs. Smythe were found empty.—Would not these facts exercise any influence on your judgment?—Not unless I knew how the post-mortem examination was made. If it was commenced at the head, the blood being fluid, the large veins would be opened, and the blood from natural causes would drain away.—What occasioned the contraction of the heart in the present case?—When the heart is empty it is usually contracted.—But how do you account for the emptiness?—I cannot account for it. It is not necessary to draw a distinction between the two cavities. It is common to find the left ventricle contracted and hard,

and the right uncontracted. In Cook's case the lungs were described as not congested. There was emphysema present. Emphysema is of two kinds; one of them consists in dilatation of the cells, and the other in the rupture of the cells. When animals die from strychnia, there is a rupture of the cells. I do not know the character of the emphysema in Cook's case. It did not occur to me when Dr. Harland was examined. The combination of Cook's disorders and symptoms predisposed him to convulsions. Excitement and depression of spirits were among the predisposing causes. He was three minutes speechless after hearing that his horse had won. Mr. Jones said he was subject to depression. Excitement will induce that state of the brain in which convulsions will follow at some distance. The brain was not perfectly healthy; Mr. Bamford said so.—Do you mean to set up this opinion against that of Mr. Devonshire and Dr. Harland?—I found my opinion upon what has been stated in evidence here. In peculiar constitutions of brain and system, I believe it quite possible for convulsions to come on and destroy a person. I do not believe Cook died of apoplexy. He was under the influence of morphia. I do not ascribe the death to morphia, except that it might assist in producing the convulsive attack, and there might be changes in the spinal marrow. I should think morphia would not be good for his state. It is good in cases of excitement; but where there is sickness it will often disagree with the patient. Sickness is an indication of irritation of the brain, without there being any delirium; and on Sunday I think he must have been delirious, and he may have had some similar attack at Shrewsbury.—Do you represent that he had convulsions on the Sunday night?—I cannot say.—Do you believe he had not?—No, I do not. The attack of Sunday was of less intensity than that of Monday or Tuesday. The convulsions may have been of the same character, but not of the same degree. He was in a condition which often precedes convulsions. I think he was mistaken when he said that he was awoke by a noise. I believe he was delirious. Any intestinal irritation will produce convulsions of a tetanic form, which may end in death. I have known such instances in children. I know no special name for convulsions of that kind. I have not known a case of convulsions of that kind terminating in death, in which the patient remained conscious to the last. I have seen four cases of traumatic, and five or six of idiopathic tetanus.—You heard the statement of Mr. Jones, with reference to the symptoms of Cook; I ask you to distinguish between them and the symptoms of tetanic convulsions in any particular?—It is not tetanus at all; not idiopathic tetanus. I do not know whether there is any distinction between the paroxysms and those of tetanus. I do not think it was tetanus at all, as a disease. I never saw a case of tetanus in which rigidity continued after death. The paroxysms of tetanus are not always distinguishable from other convulsions at the moment of death. The convulsions produced by strychnia are called tetanic, and properly so. The hands are less violently contracted, and spasms are less violent in ordinary tetanus than in tetanus from strychnia. I expressed an opinion in the Leeds case that the death was from strychnia. I stated that ordinary tetanus is a disease of days, the tetanus of strychnia of hours and minutes; that convulsive twitchings in tetanus from strychnia are the first symptoms—in ordinary tetanus the last; that in tetanus the hands, feet, and legs are usually the last affected, while in the effects of strychnia they are the first. I never said that Cook's case was one of idiopathic tetanus.—Don't you know that Mrs. Smythe talked and retained her consciousness to the end, and that her last words were, "Turn me over?"—No doubt she did use those words. I believe that in tetanus from poison the symptoms are first observed in the legs and feet. In the animals upon which I have experimented, twitchings in the ears and difficulty of breathing have been the premonitory symptoms. The animals could not bear to be touched. I am aware that, in the Leeds case, the lady asked to be rubbed before the convulsions came on; but afterwards she could not bear it, and she begged that she might not be touched.—Can you state any point in which the premonitory symptoms differ in this case from those of strychnine tetanus?—The power of swallowing is taken away, by inability to move the jaw. There was a power of swallowing very late in Cook's case.—Have you not stated that lock-jaw is the last symptom occurring in strychnine tetanus?—Yes; I do not deny that it may be. I am speaking of a general rule. In the Leeds case it came on early, more than two hours before death. In that case, we believe that the dose was four times repeated. Poison might probably be extracted from the tissues by a chemical process. We killed four animals in reference to the Leeds case, and in every instance we found strychnine. In one case, we made the test by two processes, one of which failed, and the other succeeded.

Mr. Wm. Herapath, examined by Mr. Grove—I am a Professor of Chemistry and Toxicology. I have studied chemistry for more than forty years, and toxicology for thirty. I have experimented on the poison of strychnia. I have seen no case of the human subject during life, but I have examined a human body after death. In one case I found strychnia about three days after death. I used several tests, sulphuric acid and bichromate of potash; sulphuric acid and per-oxide of lead; sulphuric acid and per-oxide of manganese; sulphuric acid and ferrid-cyanide of potassium. These constitute one class of colour tests; they all produce a purple colour with strychnia, which purple colour passes to red. There is another class of tests giving another colour with common strychnia, but not with pure strychnia. I have experimented upon animals in regard to strychnia in eight or nine cases. I have analysed the bodies in two cases in which I destroyed the animals myself. Both of them were cats. I gave the first a grain of strychnia in a solid form. The animal took the poison at night, and I found it dead in the morning. It was dreadfully contorted and rigid, the limbs extended, and the head turned round, not to the back, but to the side; the eyes protruding and staring, and the iris expanded, so as to be almost invisible. I found strychnine in the urine and in the stomach. I administered the same quantity in a solid form to another cat. It remained quiet for fifteen or sixteen minutes, but seemed a little restless; in thirty-five minutes it had a terrible spasm, the extremities and the head being drawn together, so as to meet in the centre. I watched it for three hours. The first spasm lasted a minute or two. The saliva dripped from the mouth, and the urine was forcibly ejected. It had a second spasm in a few minutes. It soon recovered, and remained still, with the exception of a trembling all over. During nearly two hours and a-half it was in a very peculiar condition; it appeared to be electrified all through. Blowing upon it or touching it produced a kind of electric jump. I left it in three hours, thinking it would recover, but in the morning it was dead, in the same indurated and contorted condition as the former animal. Thirty-six hours after death I found strychnia in the urine, in the stomach, in the upper intestines, in the liver, and in the blood of the heart. I have discovered strychnia in all other cases by the same tests. But I took extraordinary means to get rid of organic matter. That is the principal difficulty in these cases. I have found not only strychnia, but nux vomica, the detection of which is more complicated. In one case the animal had been buried two months. I have experimented upon strychnia mixed previously with organic putrefying matter, and have always found it. I think strychnia should always be discovered, unless the body has been completely decomposed—I mean, reduced to a dry powder. I do not know how there could be an error in the analyses, if the organic matter had been previously got rid of.

Cross-examined by the Attorney-General—I am not a Professor of Physiology. I first tried experiments on the tissues of the body on the 8th of the present month, with reference to the present case. I have experimented about nine times. I experimented upon a cat in Bristol and a dog in London. In the cat I found the strychnia in the liver, heart, and urine. A grain was given to the dog, which was a large one. I have seen a cat destroyed with a quarter of a grain. The Attorney-General—Have you, Mr. Herapath, ever stated that you believed strychnia had been given in this case, but that Dr. Taylor had not taken the right way to find it. Witness—I may have said so. I had a strong opinion from the reports in the newspapers, that strychnia had been given. I may have said that often. That was my general opinion.

Re-examined—If the strychnia is perfectly pure I am satisfied that the fifty-thousandth part of a grain can be detected, if unmixed with organic matter. About ten grains is soluble in a gallon of water. I can take the tenth part of a drop of that water, and demonstrate the presence of strychnia. I cannot say how small a quantity can be detected when mixed with organic matter. It depends upon the nature of the organic matter. I cannot say how much would be found in the heart if a grain had been given. I found it in an eighth

part of the liver of the dog, and had enough for four experiments by the four tests.

Mr. Julian Rodgers, examined by Mr. Gray—I am Professor of Chemistry at the School of Medicine adjoining St. George's Hospital, London. I have made experiments on an animal, with a view of extracting strychnia. They commenced at the end of December last, and terminated about ten days ago. The animal was a dog. I gave it two grains of strychnia between two pieces of meat. The dog died. Three days afterwards I removed the stomach and some of the blood. In ten days the blood became putrid, and I then commenced the analysis. I separated the strychnia, and tested by colour-tests. In a month or five weeks afterwards I analysed the stomach and contents. I treated them with acidulated syrup water, with a view to discover the strychnia. I put them aside till ten days ago, when I separated strychnia in large quantities. I do not know how much exactly, but I had enough for a large number of experiments. I have not analysed the human stomach for strychnia, but I have for other poisons. If strychnia was in the jar sent to Dr. Taylor, I am unquestionably of opinion that it ought to have been found.

Cross-examined by the Attorney-General—I have only made one experiment with strychnia. If the stomach and contents were shaken up together in the jar, a more careful operation would be necessary, but the poison ought to be detected. The Attorney-General—Suppose the stomach had no contents. Then one could try with the washings of the stomach. If strychnia had been in Cook's body, I see nothing that would prevent its detection even now. I do not think that the time which has elapsed would prevent the discovery.

Re-examined—A portion of the strychnia would be smeared over the mucous surface of the stomach, and I should expect to detect that by washing.

Dr. Henry Letheby—I am a Bachelor of Medicine, and Professor of Chemistry and Toxicology in the London Hospital School of Medicine, and also Medical Officer of Health to the City of London. I have been engaged for some time in the study of poisons, and in their action on the animal economy. I have also been engaged frequently in behalf of the Crown in prosecutions of this nature during the last fourteen years. I have been present during part of the examination of the Medical witnesses, and attended to their evidence. I have heard the witnesses examined as to the symptoms of Cook. I have witnessed many cases of poisoning by strychnia in the lower animals, and several by nux vomica in the human subject, one of which was fatal. The symptoms of the animals I have seen do not accord with the symptoms that have been described in this case. In the first place, I have never witnessed such a long interval between the administration of the poison and the coming on of the symptoms, as is said to have elapsed in this case. The longest interval I have known has been three-quarters of an hour, and then the poison was administered under what may be termed disadvantageous circumstances—upon a full stomach and in substances not easy of solution. I have seen the symptoms begin in five minutes. I have seen dozens of cases of the administration of strychnia. The average interval has been a quarter of an hour. In all animals that I have seen under the influence of strychnia, the system has been in such an irritable state, that the very slightest excitement, or the least effort to move, or a single touch, a noise, or a breath of air, would set them off in convulsions. It is not at all probable that a person under the influence of strychnia would be able to get out of bed and pull the bell violently. I cannot say what is possible. Any movement would excite the nervous system, and bring on the spasms or convulsions. It is not likely that a person in such a state could bear to have his neck rubbed. When the first paroxysm goes off, in a case which is not fatal, it is succeeded by another less violent, and the paroxysms gradually subside, being less and less violent, extending over a period of some hours. Of all poisons strychnia is most easy of detection—whether mineral or vegetable. I have often detected it in the stomach of animals, and also in the blood and in the tissues. The longest period that I have examined a body after death has been one month. The animal was in a state of decomposition. When strychnia is pure, it can be detected in as small quantities as the twenty-thousandth part of a grain. I can detect the tenth part of a grain in a pint of any liquid. I detected the strychnia in a dog after decomposition had begun. I have never failed to detect strychnia where it has been given. I believe positively if a jar containing the stomach and intestines of a man who had taken strychnia were sent to me, six days after death, I should detect it. I have always found the right side of the heart full of blood in animals that have died of strychnia. Death takes place by the fixing of the muscles of the chest by spasms; the blood is then unable to pass through the lungs, and the heart cannot relieve itself of the blood that is flowing to it: it therefore becomes gorged. The lungs have been congested—filled with blood. I agree with Dr. Taylor that strychnia given in the form of pill or bolus may kill in about six minutes. When the animal is in spasms it falls on its side; the jaws are sometimes spasmodically closed; and a slight noise or touch produces another paroxysm. I do not consider that the colouring tests for strychnia are fallacious. I agree with the theory of the absorption of the strychnia, but not of its being changed. It is my opinion that it is not changed in the body so as to be undiscoverable. The mixing of a stomach and its contents with the intestines would not prevent the detection of strychnia if any was present.—The Attorney-General said it was not clear that there were any contents in the stomach at all. Examination resumed:—The mucous membrane of the stomach ought to exhibit traces of strychnia if any was present. I have studied the effects of antimony. If a dose of antimony were placed in a glass of brandy-and-water, and swallowed, it would not produce a burning of the throat; antimony possesses no such quality as that of immediate burning—not in the form of tartar emetic. I have turned my attention to the subject of poisons for seventeen or eighteen years.

Cross-examined by the Attorney-General—I am not a member of the College of Physicians or the College of Surgeons. I do not practice now, but I have done so—not more than two or three years. I was employed by the Crown last in 1851, in the case of Ann Merrett. I gave evidence in this Court of the presence of arsenic; the woman was convicted. I gave it as my opinion that the arsenic had been administered within four hours. She was respited, in consequence of a letter that I wrote. I was the cause of the respite. Other Medical men interfered, and challenged the soundness of my conclusions before I wrote the letter. I cannot say that I have been employed by the Crown since. I still hold the opinion that I expressed at the trial, that the arsenic was given within four hours of death. I have destroyed about five animals with strychnia within the last two months. I have given a grain of the strychnia in a solid form, sometimes in a pill, and sometimes on the tongue. I think its effects are quicker when given in the pill than on the tongue, where it adheres for some time. In the case where the action did not come on for three-quarters of an hour, the strychnia was mixed up in a hard mass of bread. I remember in the case of one rabbit, no action came on for half-an-hour; another dose was then given, and the action came on in ten minutes. The doses were half a grain. I have noticed the irritability of the animal before it has become convulsed. I have noticed the premonitory symptoms that have been described. They do not come on in a regular order; there are slight variations. When the convulsions have commenced, a breath or noise will cause a recurrence of the convulsion. That would not apply in the case of an animal dying in the first paroxysm. I have frequently known an animal die in the first paroxysm. I have said that I should be surprised at a patient under the effect of strychnia getting out of bed and ringing the bell. I heard the evidence of the case of Mrs. Smythe. I have no doubt that she died from strychnia. If Mrs. Smythe got out of bed and rang the bell, Cook might have done so; but it is inconsistent with what I have observed. In addition to the points of distinction which I have mentioned, I know no other difference between the symptoms of Cook and those of tetanus from strychnia. One of the early symptoms is a sort of panting; it can hardly be called a difficulty of breathing. When a man feels a difficulty of breathing, it is natural that he should try and sit up; that is the position usually assumed in such a case. The subsidence of the symptoms does not depend upon the dose. I have seen several recoveries. I think there is great uniformity in the effects of strychnia, in its main features. Sometimes there will be one paroxysm, and sometimes there will be several before death, or several paroxysms may be followed by recovery. I should think Cook had a fit on the Sunday. His symptoms are irreconcileable with any disease I have ever witnessed.

Re-examined by Serjeant Shee: We are learning new facts every day. It is not impossible that there may be some pecu-

liarity of the spinal cord, unrecognizable except immediately after death, which may have produced symptoms like those which have been described. When I say that the symptoms are irreconcileable with anything I have seen or heard of, of course I include strychnia in my answer. They are as irreconcileable with strychnia as with anything else. Touching an animal during the premonitory symptoms will bring on the paroxysm. Vomiting is inconsistent with strychnia. The Romsey case was an exceptional one, from the quantity of the dose. I am still of opinion that the evidence I gave on the trial in 1851 is correct.

Mr. R. E. Gaye, examined by Mr. Serjeant Shee—I am a Member of the Royal College of Surgeons. I attended a person named Foster for tetanus, in October, 1855. He had a sore throat, muscular pains in the neck, and in the cervical vertebræ. He was feverish, and had the symptoms which usually attend catarrh. I put him under the usual treatment, ordering strong embrocations and gargles. About the fourth day the muscular pains extended to the face. Difficulty of swallowing came on; the pains in the cervical vertebra increased, and in the muscles of the face, particularly the lower jaw. The same evening the jaw became locked, and pain came on in the muscles of the abdomen, leg, and arms. He was much convulsed through the entire muscular system, and had frequent involuntary contractions of arms and hands. Not a particle of food could be introduced into the mouth; any attempt to swallow brought on violent convulsions—so violent that I could compare him to nothing but a piece of warped board. The head was thrown back, the abdomen thrust forward, and the legs were frequently contracted. Any attempt to feed him, the opening of a window, or feeling his pulse, brought on violent convulsions. The patient complained of great hunger, and he was kept alive to the fourteenth day by injections of a milky and farinaceous character. His screams were like those of a wild man. On the twelfth day he became insensible, and continued so until he died, which was the fourteenth day from the commencement of the attack of lock-jaw. The patient was an omnibus driver. When I first saw him he had been suffering from sore throat for some days. There was no injury about his person that would account for the symptoms I have described. It was not considered necessary to open his body after death. I believe his disease to have been inflammatory sore throat, from cold and exposure to the weather; and that the disease assumed a tetanic form on account of the patient being a nervous, excitable, and anxious person. He was a hardworking man, and had a large family. This, no doubt, acting upon his peculiar temperament, tended to produce the tetanic symptoms.

Cross-examined—The case was undoubtedly one of idiopathic tetanus. It is the only one I have attended. The disease was altogether progressive, from the first onset; and though there was for a short time a remission of the symptoms, they invariably recurred. Lock-jaw was one of the first symptoms.

Mr. J. B. Ross, examined by Mr. Grove—I am House-Surgeon to the London Hospital. I remember a case of tetanus being brought there on the 22nd of March last, about half-past seven in the evening. The patient was a man aged 37. He had one paroxysm in the receiving-room before I saw him, and I found him with a rapid, feeble pulse. His jaws were closed and fixed. There was an expression of anxiety about the countenance; the features were sunken; he was unable to swallow. The muscles of the abdomen and back were somewhat tense. After he had been in the ward about ten minutes he had another attack, and his body became arched. He continued for a short time in that state. He was then quiet for a few minutes, had another attack, and died. The attack lasted about half-an-hour. There was an inquest held on the body. On examination no poison was found, and I think tetanus was the cause of death. There were three wounds on the body: two, about the size of a shilling, at the back of the right elbow, and one, about the size of a sixpence, on the left elbow. The patient told me he had had those wounds for twelve or sixteen years. They were chronic, indurated ulcers, circular in outline, the edges thickened and covered with a white coating. There was no granulation. I am unable to say how these wounds originated; but I have seen others like them. I have seen old syphilitic wounds on the legs like them. The wounds were the only cause to which I could trace the tetanus.

Cross-examined by the Attorney-General—I was informed by the patient's wife that poultices had been applied to the wounds a day or two before; but I am not certain as to the exact time. The poultices were made of linseed meal. The man's jaws were fixed, and he was consequently totally unable to swallow. He told me he was first attacked at eleven o'clock. He was able to speak, though he was unable to open the jaw. There were symptoms of rigidity about the abdominal and lumbar muscles. He did not say how long he had felt this. I gathered from him that some other Medical man had seen him in the afternoon, before he came to the Hospital; so that he had, no doubt, felt uneasy for some time before. I have no doubt that the disease had been coming on since the morning. The sores were ugly sores, of a chronic character—ulcers. There was an integument which connected the two on the right arm; so that they would be likely to run into one another. There were no signs of healing. They had the appearance of old neglected sores. They were very near the ulnar nerve, which is a very sensitive nerve, connected with what is commonly called "the funny bone." I heard that he had had successive paroxysms all the afternoon, before he came to the Hospital. There were no convulsions of the legs and arms. The symptoms from which I infer that the deceased died from tetanus were, that he had wounds, spasms, and lock-jaw, rigidity of the muscles of the back and abdomen, and pain the stomach. I did not hear the account of the symptoms of Cook's death. An affection of the ulnar nerve was peculiarly liable to produce tetanus.

Re-examined by Mr. Grove—The existence of strychnia was suspected in this case. The nerves of the tongue are very delicate, as are those of the throat and fauces. I have read descriptions of tetanus. The case described by Mr. Gaye was idiopathic, having been caused by a cold.—By the Attorney-General—The irritation of the ulnar nerve would be very likely to cause tetanus.

Mr. R. Mantell, examined by Mr. Grove—I am one of the House-Surgeons of the London Hospital. I saw the case mentioned by Mr. Ross, and agree with his statement of the symptoms. I have no doubt that the disease of which the patient died was tetanus, and that it was produced by the sores on the arms. The man told me that the symptoms first came on at breakfast-time.

Dr. Wrightson, examined by Mr. Kenealy—I was formerly a pupil of Liebig, at Giessen, and am now a teacher of Chemistry at the Medical School at Birmingham. I have studied the nature and acquired a knowledge of poisons; and I have been engaged by the Crown in the detection of poison in a prosecution. My attention has been a good deal directed to the subject of strychnia. I have found no extraordinary difficulties in its detection. It is certainly to be detected by the ordinary tests. I have detected it when it has been pure, and also when it has been mixed with impure matter, after decomposition has set in. I have detected it in a mixture of bilious matter and putrefying blood. I have discovered it in the tissues. I have discovered it in the viscera of a cat, in the blood of one dog, and in the urine of another dog, that have been poisoned by strychnia. I am of opinion that strychnia does not undergo decomposition in the act of poisoning, or in entering into the circulation. If it underwent such a change, I should say it would not be possible to discover it in the tissues; it might possibly be changed into another substance, which, however, would still be detectable. It can be discovered in extremely minute quantities indeed. When I detected it in the blood of a dog, I had given the animal 2 grains. To the second dog I gave 1 grain, and I detected it in the urine. Half a grain was to have been administered to the cat, but a considerable portion of it was lost. Assuming that a man was poisoned by strychnia, and if his stomach were sent to me for analysis within five or six days after death, I have no doubt that I should find it, generally.—By Serjeant Shee—I should certainly expect to do so.

Cross-examined by the Attorney-General—Supposing the whole dose were absorbed into the system, I should expect to find it in the blood. It passes from the blood into the solids of the body; or, I should rather say, it is left in the solids of the body. In its progress towards its final destination, for the destruction of life, it passes from the blood, or is left by the blood in the solid tissues of the body. If it were present in the stomach, I should find it in the stomach; if it were present in the blood, I should find it in the blood; if it were left by the blood in the tissues, I should find it in the tissues; but

if the whole had been absorbed, I would not undertake to find it; and, supposing the whole had been eliminated from the blood, and had passed into the urine, I should certainly not expect to find any in the blood. If the *minimum* dose which would destroy life had been taken, and absorbed into the circulation, then deposited in the tissues, and then a part of it eliminated by the action of the kidneys, I should search for it in the blood, in the tissues, and in the ejections; and I would undertake to discover it in each of them.

Re-examined by Mr. Serjeant Shee—If a man were killed by strychnia, administered to him an hour and a-half before he died, strychnia would certainly be detected in the stomach in the first instance. If it had been administered in the shape of pills, and completely absorbed and got out of the stomach, I cannot tell whether, if it were found, it would be in the liver and kidneys. Not knowing the dose administered and the power of absorption, I cannot say that it could certainly be detected in the coats of the stomach; but probably it could. When death has taken place after one paroxysm, and an hour and a-half after ingestion of the poison, can you form an opinion as to whether the dose was considerable or inconsiderable?—I cannot.—By Mr. Baron Alderson—I cannot form an opinion as to how strychnia acts when taken into the stomach.—Lord Campbell said, he could not allow this witness to leave the box without expressing his high approbation of the manner in which he had given his evidence.

Professor Partridge, examined by Mr. Grove—I have been many years in extensive practice as a Surgeon, and am a Professor of Anatomy in King's College. I have heard the evidence as to Cook's symptoms and post-mortem examination. I heard the statements as to the granules that were found on the spine. They would be likely to cause inflammation, and no doubt that inflammation would have been discovered if the spinal cord or its membranes had been examined shortly after death. It would not be likely to be discovered if the spinal cord was not examined until nine weeks after death. Such inflammation, if it existed, would have been sufficient to produce tetanic convulsions. I have not seen cases myself, but such cases are, undoubtedly, on record. Inflammation of the arachnoid produces a disease called arachnitis, which causes convulsions, and ultimately ends in death. I could not form any opinion from what I have heard as to the cause of Cook's case. I have heard the evidence as to the state of the contractions after death, but no conclusions can be safely drawn from that. I cannot form any judgment as to the cause of death in Cook's case. No conclusion or inference can be drawn from the degree or kind of the contractions of the body after death. Lord Campbell—Can you not say, from the symptoms you heard, whether death was produced by tetanus, without saying what was the cause of tetanus? Witness—Hypothetically, I should infer that he died of the form of tetanus which convulses the muscles. If I were told that after death the body rested on the back of the head and the heels, I should infer that death was produced by that form of tetanus which ends in convulsive spasms of the muscles of the back. The contractions after death, when resulting from natural causes, vary in almost every case. The contraction of the hands and fingers is not uncommon after natural death. The degree of arching of the feet, as described in this case, seems to me to have been rather more than usual.

Cross-examined by the Attorney-General—I understood that the granules were in the inner surface of the fibrous membrane of the spinal cord. These granules are not common, but they may exist consistently with health. No cases of the inflammation I have described as producing convulsions have come under my notice. It is a very rare disease. It varies in duration; often lasting only for days; if it lasts for months it is generally accompained with paralysis. It produces no effect on the brain which is recognizable after death. It would not affect the brain prior to death. I do not know whether it is attended with loss of sensibility before death. The size of the granules which will produce it varies. The disease, as affecting the spinal cord, may last for months, but not unless it terminates in palsy. The extent and duration of the convulsions varies; but I never heard of a case in which the patient died after a single convulsion. Between the intervals of the convulsions I don't believe a man could have twenty-four hours' repose. Pain and spasms would accompany the convulsions. I cannot form a judgment as to whether the general health would be affected in the intervals between them. I do not think Cook's symptoms proceeded from that disease. I never knew the hands completely clenched after death in cases of tetanus. I have never seen idiopathic tetanus. I have seen the hands completely clenched in traumatic tetanus. A great deal of force is often required to separate them. I have never known the feet so distorted as to assume the form of a club-foot. The resting of the body on the head and the heels is a form of tetanic spasm. I am only acquainted with tetanus resulting from strychnia by reading. Some of the symptoms in Cook's case are consistent, some are inconsistent, with strychnine tetanus. The first inconsistent symptom is the intervals that occurred between the taking of the supposed poison and the attacks. The symptoms of bending of the body, difficulty of respiration, convulsions in the throat, legs, and arms, are perfectly consistent with what I know of the symptoms of death from strychnia. I have known cases of traumatic tetanus. The symptoms in those cases came on gradually and steadily, and, although there might have been slight intermittent relaxations of the convulsions, the disease never subsided. I never knew traumatic tetanus run its course to death in less than three or four days. If death resulted in two hours, I should certainly infer that there had been premonitory symptoms. I never knew a complete case of the operation of strychnia upon a human subject.—Bearing in mind the distinction between traumatic and idiopathic tetanus, did you ever know of such a death as that of Cook, according to the symptoms you have heard described?—No.

Re-examined by Mr. Grove—Besides the symptom I have mentioned as being inconsistent with the theory of death by strychnia, there are others—namely, sickness, beating the bedclothes, want of sensitiveness to external impressions, and sudden cessation of the convulsions, and apparently complete recovery. There was apparently an absence of the usual tremulous muscular agitation. Symptoms of convulsive character arising from an injury to the spine vary considerably in their degrees of violence, in their periods of intermission, and in the muscles which are attacked. Intermission of the disease occurs, but is not frequent, in traumatic tetanus. I don't remember that death has ever taken place in fifteen hours. It may take place in forty-eight hours during convulsions. Granules in the spine are more usual in young people than in old. I cannot tell whether they are more indicative of disease in young people. I know of no case in which the spine has preserved its integrity for nine weeks after death, so as to be fit for examination. If I found no disease at the end of that time, I should not feel justified in inferring that none existed. The period of decomposition varies from a few hours to a few days. Supposing the stomach were acted upon by other causes, I do not think sickness would be inconsistent with tetanus.

Mr. John Gay, examined by Mr. Grove—I am a Fellow of the Royal College of Surgeons. I was for seventeen years Surgeon to the Royal Free Hospital, where I had a case of traumatic tetanus, in 1843. The patient was brought in when he was ill. He was brought in on the 28th of July, and died on the 2nd August. He had met with an accident about a week previously. His mother, on bringing him in, said he could not open his mouth, and he complained of stiff neck. During the night he started up, and was convulsed. He was also convulsed on the following night. The abdominal muscles, as well as those of the legs and back, were rigid. The muscles of the face were also in a state of great contraction. On the morning of the following day he was in the same state; but at two o'clock the muscles, especially those of the abdomen and back, were much less rigid. On the following morning the muscular rigidity had gone; he opened his mouth, and was able to talk. Indeed, he appeared thoroughly relieved. He had no return of the spasms, till half past five on the following day. He asked the nurse to change his linen. She then went to set him up in the bed, when violent convulsions of the arms and face came on, and the boy died in a few minutes. About thirty hours elapsed between the two last convulsions. I had given the patient tartar emetic on the second day, in order to produce vomiting; but it had no effect. I afterwards gave larger doses, which were also without result, and I then gave no more.

Cross-examined by the Attorney-General—The accident which happened to the boy was a complete smashing of the middle toe of the left foot by a large stone. The wound had

become very unhealthy. I amputated the toe. The mouth was also closed when I first saw the boy; but I could manage to get a small quantity of tartar emetic in. The muscles of the body, the abdomen, back, and neck, were rigid for the two days during which I administered tartar emetic, and the rigidity would doubtless go far to prevent the vomiting. The symptoms began to abate on the fourth day, and gradually subsided until the rigidity wore off. I thought he would recover. His being lifted up in the bed might have produced some friction that might be injurious; but I do not think it likely. My impression was, that there must have been some action of the spinal cord to cause the convulsions, set up, perhaps, by the irritation of the nerves, occasioned by the wound in the toe. I have no doubt the laceration of the toe was the immediate cause of the disease.

Re-examined—There may be various causes for the irritation of the spinal cord which ends in tetanic convulsions. It is difficult to assign a particular cause in every case.

Dr. M'Donald, examined by Mr. Kenealy—I am a Licentiate of the Royal College of Surgeons, Edinburgh, and have been in practice fourteen years. I have had practical, as well as theoretical, experience in cases of idiopathic and traumatic tetanus. I have seen two cases of idiopathic tetanus; I have made that disease a subject of investigation. Tetanus may proceed from very slight causes. Any alteration of the secretions might produce idiopathic tetanus, or exposure to cold or damp, or mental excitement, might give rise to it. Sensual excitement would produce it. The presence of gritty granules in any part of the body might produce tetanic convulsions; that is, if they were in any part connected with the nervous structure, as the spine or brain. I have seen cases in which small gritty deposits in the brain were the only assignable cause of death. There are also causes for tetanic convulsions which are altogether undiscernable by human science. Many post-mortem examinations have been made in cases of tetanus, in which no trace of disease could be found, beyond the congestion and vascularity of some of the vessels surrounding the nerves. Strychnia is easily discoverable, though the cause of tetanus is not. I remember the case of Catherine Watson, whom I was fortunate enough to cure of idiopathic tetanus, and she is now here. [The witness read the notes which he made of this case at the time it occurred.] She was a young and healthy muscular young woman, about 22 years of age, with no other premonitory symptoms than a little dulness and heaviness during the day. She was suddenly attacked with tetanic convulsions. The witness bled her, and there was a longer interval between the convulsions than previously; but, on a return of the spasms, he administered chloroform in an almost continuous stream; after which she slept for thirty-six hours, and recovered. In that case there was lock-jaw, which came on about the middle of the attack. In acute attacks lock-jaw is generally a later symptom. I had a patient named Copeland, who died in a convulsive attack. I believe his was a case of idiopathic tetanus, as there was no external cause. Death took place in about two days. I have examined many animals with regard to the effects of strychnia, and have generally found the post-mortem appearances pretty uniform. The vessels of the membranes of the brain have been generally congested, and the sinuses gorged with blood. There was in one case hæmorrhage from the nostrils. There has been, in some cases, an extravasation of blood in the brain. I have cut through the substance of the brain, and have discovered numerous red points. The lungs have been either collapsed or congested. The heart has been always filled on the right side, and frequently on the left. The liver has been congested, and the kidneys and spleen have been generally healthy. The vessels of the stomach were congested on the outer surface, and the mucous surface has been highly vascular. The vessels of the membranes of the spinal cord have been congested, and I have sometimes seen red points on cutting it through. You may generally judge of the cause of death from post-mortem appearances. I have experimented on a great many cases with reference to strychnia. If you kill an animal with a grain, you may discover traces of it. I believe you can discover the fifty-thousandth part of a grain. I have experimented so as to discover that quantity. The decomposition of strychnia in the way described by Dr. Taylor I have never heard of from any other eminent scientific man. I heard the theory first propounded in this Court. I believe there are no well-grounded reasons for it. I have proved the theory wrong by many experiments. I have taken the blood of an animal poisoned by two grains, and injected it into the abdominal cavities of smaller animals, and have destroyed them, with all the symptoms and post-mortem appearances of poison by strychnia. The detection of strychnia would be as easy, if it were administered in the form of pills, as if given in any other form. I should think if the pills were hard they would keep the strychnia together, and you might find it more easily. I do not agree with Dr. Taylor in thinking the colour-tests fallacious; I believe they are reliable modes of ascertaining the presence of strychnia. Strychnia cannot be confounded with pyroxanthin. An increased flow of saliva is a marked symptom of strychnia. Animals under the influence of this poison are very susceptible to the touch. A stamp of the foot, a slight touch, or a sharp word, would throw them into convulsions; that is, after the symptoms have set in. I thing it very improbable that a man under the influence of strychnia could pull a bell violently. I have heard the Medical evidence that has been given in this cause. I do not attach much importance to the symptoms, as a means of diagnosis, because you have the same symptoms developed from various causes. A dose of strychnia sufficient to destroy life would not, I think, require an hour and a-half to manifest its effects. My opinion is, that death in this case is produced by epileptic convulsions, with tetanic complications. I ground my opinion on the post-mortem appearances being so different in Cook's case from those that I have generally seen, and upon the belief that a dose of strychnia sufficient to destroy life in one paroxysm could not, as far as I am aware, have required even an hour for its observation and fatal results. The interval of repose from Monday to Tuesday night is consistent with the supposition of epileptic attack, as epileptic seizures very often occur about the same hours. Supposing a man to be so excited that he was speechless for three minutes after his horse had won, that he had excited himself by drink, that he had been attacked by violent vomiting, and that gritty granules were found in the spinal cord after death, would any of these causes be likely to produce death by convulsions?—I think any one of those causes would produce them. In a congeries they would be more likely to produce them.

Cross-examined by the Attorney-General—I am not a General Practitioner. I am a parochial Medical Officer. I have had two cases of idiopathic tetanus. The case which I have reported might have arisen from mental excitement. I saw Catherine Watson about half-past ten at night. She had had about five or six spasms before I saw her. She had gone about her usual duties up to the evening of the attack. She had for two days previously felt slight lassitude; she would not own that anything else had been the matter with her; she had felt no stiffness. I cannot say exactly when the lock-jaw came on. The other case, that of Copeland, was that of a young child three months old. I saw it in good health half-an-hour before the convulsions. There was opisthotonos in that case. There was a spasm of the diaphragm just before the child died. When I saw the child it was lying in bed asleep. I could not see its face, but I judge that the child was asleep. Mr. Smith applied to me in January. I first communicated this case of Watson to him as resembling the symptoms of the deceased. I have been in London from the beginning of the trial. I have attended at the consultations. I made some experiments with reference to this case in January. I made some before, eight or ten years ago. I then discovered that strychnia could be detected in the blood by physiological tests. The animals have been dogs, cats, rabbits, and fowls. I gave small doses, in order to try how small a quantity would kill.—Did you try to find strychnia in those cases? I did not kill the animals with the very small quantities. I began with giving a quarter of a grain to a dog, and I increased the quantity gradually.—But answer me—Did you try to find the strychnia in those cases?—I tell you I did not kill the animals. I could not destroy a dog with half-a-grain. I have always found the brain highly congested. The heart has been congested. The spasms of the limbs might have caused the fulness of the heart; the spasms will drive out the blood from the smaller capillaries into the larger vessels of the cavities, and the larger vessels would be thus distended. The lungs have been in most cases collapsed. The spasms of the respiratory muscles may prevent the expansion of the lungs. I have found

no case in which there was no congestion of the brain. So far as I can judge from hearing the evidence in court, I think the case of Cook was one of epileptic convulsions, with tetanic complications.—What does epilepsy proceed from?—No one can answer that question. I have no definite opinion upon that. I have seen one death from epilepsy. The patient was not conscious. I do not know of a case in which the patient has been conscious to the last.—Now, Sir, you surely know whether there are such cases: you are well up in this matter, you know. Witness—I am "well up" in most branches of medicine. Being so proficient as you are, do you know of a single case in which a patient dying from epilepsy has been conscious up to the time of death?—No, I do not. I heard Sir Benjamin Brodie say he did not think the death of Cook was from natural causes. I do not agree with him. I give that as my opinion only. I believe the death to have resulted from epilepsy. I said mental excitement might have caused the convulsive attack. I believe it to be within the range of probability. Cook was excited, and consequently afterwards depressed. When was there any depression in Cook?—There is always depression after excitement. If I am excited, and work hard for several days, I generally vomit afterwards. If Cook felt the same depression after his excitement that I have felt, it might have produced vomiting. Do you think that the excitement on the Wednesday accounts for the vomiting on the Tuesday following?—No, I do not say so. Cook, I know it has been said, was in good spirits and jocular up to the time of the attack; but he might have been the subject of bilious attacks. The white spots in the stomach might have caused convulsions. They must have produced inflammation.—The Attorney-General—But the gentlemen who made the examination say there was none?—I don't believe them. (Laughter.) The man was under sensual excitement. I judge it from the appearances of the body. Epilepsy has been known to follow sexual intercourse. What, a fortnight afterwards?—It may set up a state of the system which would lead to convulsions. Sexual intercourse might give rise to convulsions a fortnight afterwards. I never knew a chancre produce epilepsy. I never heard of it. It may produce tetanus. But we are talking of epilepsy, are we not?—But you forgot the tetanic complications. (Laughter.) Sensual excitement sometimes produces epilepsy. The convulsions of which Cook died might have been caused by epilepsy. I cannot ascribe his death to anything but what I have stated. I was asked to come and give my evidence to-day. I cannot recollect any case where death has followed from the administration of strychnia in less than half-an-hour.

Re-examined by Mr. Serjeant Shee—From my reading of the works of Dr. Mason Good, Esquirol, and other authors, I have learned that there are convulsions which are not strictly epilepsy, although they resemble it in some of its features. I have ascertained that there have been convulsions of an epileptic character, violent enough to cause death, without the person attacked entirely losing his consciousness. Epilepsy, properly so-called, is sudden in its attacks, and the patient falls down with a shriek. It very often occurs at night in bed. Where it attacks a young man or woman its existence is sometimes known to the family of the patient but not to himself or herself. Convulsions of an epileptic character are sometimes preceded by premonitory symptoms. The epileptic patient is sometimes thrown into tetanic contortions. Pending those struggles of an apparently epileptic character, actual epilepsy sometimes comes on; this depends upon the strength of the spasm. It very often happens that a patient may be quite well the day after severe epileptic convulsions, and appear as though nothing had happened the previous night. When an adult is seized for the first time, experience of Medical men has proved, that several fits succeed one another within a short period. From the account given by Cook of what happened to himself during the Sunday night, when he was so suddenly aroused and alarmed, as by noises in the street, I should infer that it was occasioned by some sudden spasm. I should refer what had occurred to him to mental excitement in the absence of the account given by himself of his symptoms. There might have been some disturbance of the brain that would be sufficient to produce those effects. Where there are spots in the stomach I think there must be inflammation. Eighteen months ago I found such spots in the stomach of a person who died from fever. I have read of similar spots in the stomachs of persons who have died suddenly.

Dr. Bainbridge, examined by Mr. Grove—I am a Doctor of Medicine and Medical Officer of St. Martin's Workhouse. I have been conversant with the cases of 600 persons who have been afflicted with convulsive disorders, displaying a great variety of symptoms. There are cases of hysteric convulsions accompanied by opisthotonos. They vary very much in their character, according to the characteristics of the individuals. The fits sometimes recur on the same day and the same month. I know of one case where a person was attacked on a Christmas night, and on that day twelvemonths he was attacked just in the same way. It is difficult to draw a clear line between these varieties of convulsions; they grow into one another so imperceptibly, that the most experienced Medical man cannot tell where one form of the disease terminates and another begins. Hysteria is often attended by tetanic convulsions. Epileptic convulsions are frequently accompanied by tetanic complications.

Cross-examined by the Attorney-General—Hysteric convulsions, attended by these tetanic complications, very rarely end in death. I know of one case within the last three months in St. Martin's Workhouse. The patient had had several previous attacks of the same character, and he died in a few minutes after the last attack. I did not examine the body. I was told by the attendants, that he was attacked with sudden convulsions and fell down, and died in five minutes. There was no opisthotonos there, but there was spasmodic action of the hands. In many—not in all—cases of this description consciousness is destroyed. I never knew a case in which the patient spoke during the paroxysm. Epilepsy is sometimes attended with opisthotonos. I have never known a case of epilepsy terminating in death in which consciousness was not destroyed. I have known ten or twelve such fatal cases.

Re-examined—Persons generally fall asleep after epileptic attacks, and after taking opium.

Mr. Edward Austen Steddy, examined by Mr. Grove—I am a Member of the Royal College of Surgeons, and am in practice at Chatham. In June, 1854, I attended a patient who was afflicted with curvature of the body—sideways, not opisthotonos, but pleurosthotonos. She had trismus also. It continued nearly a fortnight. There are remissions in that disease. She had suffered from it twelve months before. At the end of the fortnight she became better; twelve months afterwards she was again seized, but recovered. She is still alive. I endeavoured to ascertain the cause of the disease. It had been brought on by passion, through a quarrel with her husband.

Cross-examined by Mr. Edwin James—I learned that she had also a blow on her side, resulting from that quarrel with her husband. Trismus, or lock-jaw, set in. She has had tetanic twitchings ever since her recovery from that attack. I cannot find out her particular form of disease. The attack of last year continued about a week, trismus continuing the whole of the time.

Dr. George Robinson—I am a Licentiate of the Royal College of Physicians, and Physician to the Newcastle-on-Tyne Dispensary and Fever Hospital. I have devoted much attention to the subject of pathology, and have practised as a Physician for ten years. I have heard the Medical evidence in this case, and I should say that Cook died from tetanic convulsions. I do not mean the convulsions of tetanus, but convulsions similar to those of the disease. The convulsions of epilepsy sometimes assume a tetanic form. There is no department of pathology more obscure than that of convulsive diseases. I have seen examinations after death from convulsive diseases without seeing any morbid appearances whatever; and, in other cases, the symptoms have been applicable to a great variety of diseases. Convulsive diseases are connected with the condition of the nerves. The brain has a good deal to do with the production of convulsive disease, but the spinal cord has more. Gritty granules in the region of the spinal cord would be very likely to produce convulsions similar to those described in the case of Cook. The condition of Cook, his exposure to damp and cold, and his state of excitement, might have much effect in predisposing him to epilepsy. I have witnessed, and have performed, some experiments with strychnia. I have prescribed it in cases of paralysis.

Cross-examined by the Attorney-General—I have seen

perhaps twenty cases in which epilepsy has assumed the form of opisthotonos. I have not seen opisthotonos assume the form of the symptoms said to have been seen in the case of Cook, the body resting on the head and heels; that is a symptom peculiar to tetanus. Epilepsy, in its extreme forms, is accompanied by unconsciousness. I have found, in cases of epilepsy, gritty granules in the brain; and any disturbing cause in the system might, I think, produce convulsions. I believe that, in this case, granules were likely to irritate the spinal cord, without there being any post-mortem indication of that irritation.—Were not the symptoms in Cook's case the symptoms of tetanus from strychnia?—Some of them are observable in other cases.—Have you ever known two of Cook's symptoms, consciousness and opisthotonos, in cases of epilepsy?—No.

Re-examined—Epilepsy is a form of disease which includes many others.

Dr. Benjamin Ward Richardson—I am a Physician practising in London. I have never seen a case of tetanus, traumatic or idiopathic; but I have seen a considerable number of cases of death by convulsions. I have known them assume a tetanic form, without being, strictly speaking, tetanus. The muscles have been fixed, especially those of the upper part of the body; the arms stiffened out, the hands firmly clenched until death. I have observed symptoms in such cases of suffocation. I have seen contortions of the legs and feet; and where the patient is conscious, he generally expresses a wish to sit up. I have known persons die of a spasmodic disease called angina pectoris, the symptoms of which, I consider, closely resemble those of Mr. Cook. In some cases the disease can be detected on a post-mortem examination; in others it cannot. In 1850 I had one case of angina pectoris under my care—that of a girl ten years of age. She had suffered, I supposed, from a slight attack of scarlet fever, but had so far recovered that my visits had ceased. I left her in the morning amused and merry; at half-past ten in the evening I was called in to see her, and found her dying. She was supported upright, at her own request, by her sister. Her pulse was full; the muscles of the face were rigid, the arms rigid, the fingers clenched, the respiratory muscles completely fixed and rigid; and with all this there was combined intense agony and restlessness, such as I had never witnessed in any other case. The child knew me, told me of her agony, and eagerly took some brandy-and-water in a spoon. I went to my house, thirty yards distant, to obtain some chloroform, and on returning her head was drawn back, and I could detect no respiration. The heart had stopped, the eyes were fixed open, and the body resembled a statue. She was then dead. I made a post-mortem on the following day. The brain was slightly congested; the upper part of the spinal cord seemed normal and healthy; the lungs were collapsed; the heart was in a state of spasm, and so empty that I made the remark, that it might have been rinsed out. I could not discover any appearance of disease that would account for death, except a slight effusion in one pleural cavity. The child, it was stated, took her supper, went to bed merry, and after having lain down, jumped up suddenly, and exclaimed, "I am going to die."

Cross-examined by the Attorney-General—I consider the symptoms I have described to be those of angina pectoris. The nature of the disease is an open question. Dr. Jenner says it arises from ossification of the coronary arteries and the valves of the heart. I did not find that to be the case in this instance. There have been many cases where the cause has not been discovered. I do not think the symptoms I have mentioned would result from the administration of strychnia. Rubbing the hands gives comfort to the patient in cases of angina pectoris. There may be great difficulty in distinguishing between angina pectoris and the effects of strychnia. As regards the symptoms I know of no difference. By Serjeant Shee—I think Cook's attack on two successive days, with an interval of twenty-four hours, is more consistent with angina pectoris than poison by strychnia.

Dr. Wrightson was re-called, and stated in answer to Serjeant Shee, that he believed when the strychnia poison was absorbed it was diffused throughout the entire system. The Attorney-General—Would the longer time that elapsed between the taking of the strychnia and the death be likely to be attended with a more complete absorption?—Yes. And the less the chance of finding it in the stomach?—Yes; but I should still expect to find it in the spleen, and liver, and blood.

Catherine Watson was called, and stated, that she was attacked with a fit in October last, and had no wound of any kind on her body at the time, nor had she taken poison. In cross-examination she said that she was taken ill at night—that she felt heavy all day. The first pain she felt was in her stomach; then she had cramp in her arms, and was afterwards quite insensible. She was bled, and that was the only thing she recollected.

Mr. Oliver Pemberton, Lecturer on Anatomy at Queen's College, Birmingham, and Surgeon to the General Hospital in that town, stated that he was present at the examination of the body of Cook, after his exhumation in January; and that the spinal cord was not then in such a state as to enable him to say what had been his condition immediately after death. The upper part was green from decomposition; and the rest so soft that its state immediately after death could not be determined.

In cross-examination, he stated that he saw the spinal cord the day after the long canal had been opened. The opening of the canal would expose the cord to the atmosphere, but it was still protected to some extent by a strong membrane. He believed, but was not certain, that the dura mater was not opened until he was present. He attended on behalf of the prisoner, as did also Mr. Bolton, of Queen's College, Birmingham.

This concluded the Medical evidence adduced on behalf of the prisoner.

The Attorney-General then addressed the Court in reply. He said, he felt that he should be neglecting his duty if he failed to ask at their hands a verdict of guilty against the prisoner at the bar. His business now was, by fact and argument, to convince the jury, if he could, of the prisoner's guilt. Without further observation he would at once proceed to the question, "Did the deceased man, did John Parsons Cook, die from the administration to him of poison?" And the theory which he presented to the Court on behalf of the Crown was this, that having been first practised upon by antimony, his body having been prepared by the administration of that less virulent poison, he was at last killed by the administration of strychnia; the proposition which he had to establish was, that the deceased was killed by that poison. The first question, then, was, "What was the immediate, the proximate cause of death?" The witnesses for the prosecution had told them—one and all of the witnesses had told them—that the deceased died of tetanus, which signified a spasmodic convulsed action of the muscles of the body. He now asserted deliberately, that no case, either in the human subject or in the lower animals which had been submitted to the operation, had been brought under notice in which the symptoms of tetanus had been so marked as in this case. And if it was a case of tetanus, then came the question—was it produced by strychnia? According to the evidence, tetanus may proceed from natural causes as well as from the administration of poison, and, while the symptoms lasted, they were the same; but in the course exhibited by the symptoms, before the disease had its consummation in the death of the patient, the distinction between the two kinds of disease was marked by demonstrations which enabled any one to detect them. They had been told on the highest authority that the distinctions were most marked. Natural tetanus was the disease, not of minutes, not of hours, but of days. It seemed from the evidence of several of the witnesses that from three to four days was the period of the operation of natural tetanus; and that it had been even extended to a period of three weeks before death. Upon this point there was the most abundant and conclusive evidence. They had the evidence of gentlemen who had made it an especial study; they had the evidence of one of the most eminent Practitioners that ever adorned the Medical Profession, or any other profession, Sir Benjamin Brodie. They had the evidence of another Surgeon who had seen something like twenty or thirty cases of tetanus. They had the evidence of a gentleman who practised twenty-five years in India, where cases of tetanus which involved death were far more frequent than they are among us, and he described the symptoms of the disease. Natural or idiopathic tetanus was therefore out of the question in this case. Traumatic tetanus was also out of the question, but for a very different reason. Cook had had some trifling ailment, for which he had taken mercurials; but afterwards was

attended by Dr. Savage, and recovered perfectly. On the very day that he left London to go to the races, about a fortnight before his death, his stepfather accompanied him to the station, and congratulated him on his healthy and vigorous appearance; and the young man, in all the consciousness of restored health, said, "Yes; I am much better." Was there the slightest pretence for saying that this man had a disease about him which was sufficient to produce traumatic tetanus—sufficient, in fact, to account for death? Nevertheless, it had been asserted by witnesses for the defence that the disease was traumatic tetanus. There was not a shadow of pretence for this; the character which Mr. Cook's symptoms assumed was utterly incompatible with the supposition. One or two cases of traumatic tetanus had been adduced in evidence on the part of the defence. But in one, before the paroxysm, the patient felt the premonitory symptoms early in the morning, he was suffering under ulceration of a most aggravated character, and disease had existed for some considerable time before it ended in death. Then there was the case of the boy: but one of his toes had been amputated, which was, doubtless, the cause of tetanus in him. Then, again, it was suggested that it might be a case of idiopathic tetanus. Idiopathic tetanus proceeding from what? They said that Mr. Cook was a man of delicate constitution, that he was a man subject to excitement, that he had something the matter with his chest, that in addition to having something the matter with his chest, he had disease of the heart; and, putting all these things together, they said that such a man, if he took cold, might get idiopathic tetanus. The witness launched into a sea of speculation and hypothesis. He talked about excitement, about delicacy of constitution, about affections of the chest, about disease of the heart; he went through all these various heads, spoke of excitement, and said, "These things might predispose to idiopathic tetanus, if he takes cold." If he took cold! Well, what was the evidence of the cold? Cook was never treated for cold, he never complained that he had taken cold. Talk to him about excitement being the occasion of idiopathic tetanus! The sources of excitement spoken of were unworthy the notice of the jury. But suppose, for a single moment, that excitement of this kind could produce such an effect. What was the excitement manifested by Mr. Cook? It was said that his mare won at the races at Shrewsbury, and that he was consequently excited. And well he might be. It was fortunate for him that he won the race; and for a moment, doubtless, he was over-delighted. But that subsided; and there was no further trace of it till the period immediately before his death. But if such things were capable of producing idiopathic tetanus, the character of the diseases was so essentially different that it was impossible to say they were the same. He ventured, on the evidence, to assert boldly that the cases of idiopathic and traumatic, or natural tetanus, were marked by clear and distinct characteristics which distinguished them from the tetanus of strychnine; and he said that the tetanus which accompanied Cook's death was not allied to either of these forms of tetanus. But then it was said, "If not, it is something else;" and various attempts had been made to set up different causes of death. First, there was the theory of general convulsions. As regarded general convulsions, the distinction between them and this case was plain. They destroyed consciousness; but, from the first to the last of Cook's illness, up to the time when his heart ceased to beat, that man was conscious. It seemed that in the post-mortem examination of Cook, when the spinal marrow was examined, certain granules were found. This was seized upon at once; and, it was said, these granules have occasioned tetanic convulsions. A very eminent gentleman was called to give his opinion on the subject. He (the Attorney-General) admitted him to be a man of high eminence, of great skill, and of peculiar veracity. Well, that gentleman was called to prove that this was a case of what was called arachnitis, from these granules, or some other abnormal condition of the spinal marrow; but, when asked whether, looking at those symptoms, he would state his opinion in the face of the Medical world that this was a case of arachnitis, he candidly replied that he would not say so. The case of arachnitis therefore failed. He had asserted, and he now repeated the assertion, and referred to the evidence to prove it, that there was not a single case of natural disease, either a case to which those witnesses had spoken, or which they knew from cases recorded as the result of study, in which there were the symptoms, the marked symptoms, existing in the case of the deceased man Cook, the subject of the present inquiry? The defence had set up, in order to account for Cook's death, three kinds of disease: general convulsions, arachnitis, epilepsy with tetanic complications. He supposed that this had nearly exhausted the whole of these scientific theories; but they were destined to have another, and that assumed the form of angina pectoris. The gentleman who was called yesterday, and, at the last moment, said it was angina pectoris, would not have escaped quite so easily if he (the Attorney-General) had had the books now before him at hand, and been able to expose the assertions which he then made. But there was this remarkable coincidence between the views of some of the witnesses for the defence and the views of the witness. Mr. Partridge and Dr. Robinson, two of the most respectable witnesses who had been called, aye, and Mr. Nunneley himself, and Dr. Letheby himself, these, the most eminent of the witnesses his learned friend had called, agreed with the statement of Sir Benjamin Brodie, supported by other witnesses called on behalf of the Crown, that in the whole range of their personal experience as in the whole range of their learning, they knew of no disease in which the symptoms were those of Cook. When such men as these thus confessed their ignorance on such a point, what became of the statements of the other witnesses examined for the defence who attributed Cook's death in succession to those four different causes—general convulsions, arachnitis, epilepsy, and angina pectoris? But then they said there were points which led them to believe they were the symptoms of other diseases. Let us see what they were. In the first place, the difference of the period that elapsed between the first appearance of the symptoms and death—that the period was longer in Cook's case than they had ever observed in animals. Now, the first observation which arose thereupon was this, that there was a known difference between the manner in which specific things acted on the organization of men and the lower animals. It might well be that poison administered to a rabbit would produce its effect in a given time, but it by no means followed that it would produce the same effect, in the same time, in different animals, still less describing its baneful influence, in the same time, on the human system. But again, it was now perfectly notorious that the rapidity with which a poison began to act depended entirely on the mode of its administration. If administered in a fluid form it acted with greater rapidity; if in a solid state its effects came on more slowly; if administered in some indurated substance it would act with still greater tardiness, the period would be still longer before the substance, having become dissolved, the absorbents acted on it and took it into the system. Now, what was the period at which the poison began to act in the case of Cook after its administration, assuming that it was administered as he averred that it had been? It was, most certainly, not more than an hour; and in some of the experiments which had been made, the duration of the interval between the taking of the poison and its operation had been little less, if any less. Mr. Morley, who gave his evidence as well as Mr. Nunneley, stated that from five or six minutes to an hour, was the period of the poison working; but in the case they had got from Glasgow, the witness said it was three-quarters of an hour before the strychnia began to work. There might have been some reason for the pills not beginning to take effect soon after they were taken. It would be easy to make them up in some substance which would retard their operation; and he could not bring himself to believe that, if in all other respects the jury were satisfied that the symptoms, the consequences, the effects were analogous, were similar in all respects to those of strychnine, it was not because these pills took a quarter of an hour, more or less, that they would hesitate to believe that strychnine had been administered in the case. Yes, it was then said, but the primary symptoms were wanting. It was said that, in the experiments with animals, certain symptoms were manifested; sometimes the animal would shrink, and get together into itself, and avoid motions; involuntary twitchings came on before the paroxysm; and it was said there were no primary symptoms in Cook's case. He (the Attorney-General) utterly denied this. He said there were primary symptoms in the case of Cook, and primary symptoms of the most marked character. But here, again, exception had been taken on the other side; and it was said, "But these cannot have been the premonitory

symptoms of strychnine tetanus, because animals can't bear to be touched, for a touch brings on the paroxysm. Now, it was quite clear that the witnesses who came and said that the fact of Cook desiring to have his neck rubbed showed that his could not have been a case of strychnia, either suppressed the evidence which they had heard, or perhaps they had not heard it, because in case of death from strychnia he had shown, in two or three cases, the reverse state of things. But then they went further, and they said that Mr. Cook was able to swallow. So he was, before the paroxysm came on; but no one had ever pretended that he was able to swallow after the paroxysm had come on. He swallowed the pills, and what was very curious was, that it was a sort of movement of raising his head to swallow that brought on the paroxysm. So far from this militating against the theory of Cook's death by strychnia, it appeared to show that this was the precise cause of death. Then the defence went to the appearances after death; and it was said there were circumstances to be found demonstrating that this was not a case of strychnia. Let them see what they were. In the first place, it was said the limbs became stiffened, either at the time of death or immediately afterwards; and it was said that no such case was found on record. Dr. Nunneley said, in all the cases it was found that the animals killed by strychnia, in the experiments which had been made, became flexible before death, and did not become again rigid after death. He (the Attorney-General) could hardly believe that statement, when the very next witness who got into the box, Mr. Herapath, told the jury that he had made two experiments on cats, and killed them both; and he described them as indurated and contracted, and found soon after death the poison of strychnia was in the body. But, notwithstanding that one witness denied that the death of Cook could be caused by strychnia, on account of this rigidity of the limbs, the next witness called on the same side proved two instances in which the animals were indurated from one end of the body to the other, and contracted in all their muscles. The next thing that was said was, that in the case of animals submitted to the action of strychnia, the hearts were found to be full; whereas, in the case of Cook, the heart was empty. But the assertion with regard to the animals was not true in all cases. He believed there were some exceptions; and it was a remarkable fact connected with the history of the poison, that one could never rely on the precise form or order of symptoms. There were only certain great leading marked characteristic features certain; the collateral incidents were capable of infinite variety; and they had here many of the marked leading characteristics; they had what were called collateral incidents, similar to those existing in other cases of the administration of strychnia. With regard to congestion of the brain, the same observation applied. If, instead of being filled by the action of the respiratory muscles or the action of the heart, death was the result of a long series of convulsions, they should expect to find the brain congested by the spasms; and, as the death took place from one or the other of these two causes, would be the appearance of the brain after death. There was then nothing to negative the administration of the poison, from the effects seen after death. Nevertheless, there were difficulties in the case, which he would not shrink from recognising. Strychnia was not found in the body, and it was in evidence, that in a variety of experiments that had been tried on the bodies of animals killed with strychnia, strychnia had been detected by the tests which science had placed at the disposal of scientific inquirers. If strychnine had been found, of course there would have been no doubt in the matter. If, however, the court could not have the advantage of the positive detection of the strychnia, there was still no fear of the opposite conclusion, of the converse of the proposition of his learned friend, that the fact of the strychnia not having been discovered afforded negative conclusive proof of its not being there. The Attorney-General then commented on the evidence relative to Palmer's purchase of strychnia immediately preceding the death of Cook; and also on the reason which Newton stated had induced him to conceal till a few days before his trial the circumstance of his having, on the Monday night, sold strychnia to Palmer—a fear of offending his employers; he admitted that this left the evidence of Newton open to some suspicion, but he asked what possible motive except a love of truth could now induce him to come forward and state the fact in an investigation which involved the life of a fellow-creature, and which, if his evidence were believed, must cause that life to be forfeited? He also contended that the discrepancy in point of time between Newton and other witnesses as to when this took place was natural, and that it was also comparatively unimportant. He then referred to the suspicious circumstances attending the purchase of the strychnia, and argued that from all the circumstances it could be for no other purpose than to poison Cook. Then at what conclusion did we arrive? Death in all the convulsive agony and throes of that fatal poison,—death with all the appearances which follow and mark the administration of that poison,—and then the fact of strychnia purchased by the prisoner on the day of the death of the deceased, this fact wholly unaccounted for, without the shadow of an explanation; and was it possible that the jury could come to any other conclusion than that the charge against the prisoner was properly made? The Attorney-General then referred successively to the several minor matters which had been introduced for the defence, against the probabilities or possibilities of which he argued with great ability; and having alluded to the less important, though suggestive, circumstances of the case, particularly as to the prisoner's general conduct during Cook's last illness, and the strong motive which Palmer had for putting Cook out of the way, he argued that on all the evidence it was clear to his mind that the prisoner was guilty of the death of Cook.

The Lord Chief Justice Campbell summed up the case to the jury, commencing the long and laborious duty on Monday morning, and concluding it on Tuesday afternoon. He read the whole of the evidence both for the prosecution and for the defence, making remarks upon each portion as he proceeded. He first set forth the motives which might influence the mind of the prisoner in his designs upon Cook's life, and proceeding to the direct testimony concerning the fatal attack which carried off the latter, the Judge remarked that whether it were or were not agreed that the symptoms were exactly those which would be expected in a case of strychnia poisoning, there seemed to be nothing at all inconsistent in supposing that the death was so caused; for most of the Medical witnesses for the defence had admitted that Cook's case might be one of poisoning by strychnia, while the Medical witnesses for the prosecution had all expressed their distinct opinion that the case was of that nature. He directed the attention of the jury to the purchase of strychnia by the prisoner, and to the absence of denial or explanation of that fact by the Counsel for the defence. He also entered into a minute investigation of all the circumstantial evidence bearing upon the case, and affecting the conduct of the prisoner during and after Cook's death, and the subsequent post-mortem examination and the inquest. It had been urged on the part of the defence that if strychnia had been employed, it must have been detected in the body after death; but Dr. Taylor and Dr. Christison had assured them on their oath that there were certain cases which existed where it was impossible to detect strychnia even although that poison had been undoubtedly administered; and he saw no reason to doubt their evidence. The Medical witnesses for the defence were many of them men of great honour, integrity, and skill, but they appeared in some cases to have rather acted the part of advocates than of Medical witnesses. The question for the jury to consider was whether the death of the deceased was owing to natural causes or to poison; if to poison, whether the symptoms were inconsistent with poisoning by strychnia; and whether the poison was administered by Palmer; and if they believed that Palmer administered this drug, and that the death of Cook was not inconsistent with such administration they must pronounce a verdict of Guilty.

Verdict—GUILTY.

TO CORRESPONDENTS.

COMMUNICATIONS have been received from—

Dr. Andrew Smith; Mr. H. H. Watson; "First Class Staff;" Mr. A. J. Wood; Mr. Griffin; Dr. Laycock, Edinburgh; Mr. Pinnkerd; One who has got out of the Way; Dr. Henry Dicken; Mr. Lawrence; Dr. Harley; The Royal Institution; Medico-Chirurgus; Mr. De Morgan; Mr. Carsten Holthouse; Dr. W. S. Rootes; A Constant Reader, though not in the Profession; Mr. Thomas Hughes; Mr. George Shaw; Union Medical Officers of Birmingham; The Registrar of the Medical Society of London; etc.

ORIGINAL LECTURES.

LECTURES
ON
GENERAL NATURAL HISTORY.

By THOMAS H. HUXLEY, F.R.S.
Lecturer on General Natural History at the Government School of Mines, and Fullerian Professor of Physiology, Royal Institution.

LECTURE IV.

The members of the second great division of the animal kingdom, the *Cœlenterata*—exhibit a marked advance upon the Protozoa, as vital apparatus. A histological differentiation has taken place in their substance, which, in the adult condition, invariably exhibits numerous endoplasts scattered through a cellular or vacuolated periplast, and is divided into two very distinct layers,(a) an outer and an inner, corresponding with the so-called serous and mucous layers of the germ in the higher animals. A morphological and physiological differentiation has at the same time occurred, particular parts being set aside to serve as organs for prehension and reproduction, and in many cases for support, attachment, and locomotion. Altogether the animal has attained a higher degree of complexity than that reached by any of the *Protozoa*.

It has been already stated, that the great distinctive structural character of the *Cœlenterata* consists in the continuity or perfectly free communication of their digestive canal with the general cavity of the body—a peculiarity which reminds us of the early condition of the germ of the higher animals, and whose importance has been happily indicated by Messrs. Frey and Leuckart in the denomination which they have proposed for this sub-kingdom. Another less important and less exclusively characteristic feature of the division is the great development of the peculiar organs of offence and defence, termed "thread cells." These are rounded sacs of very variable dimensions, filled with a fluid, and containing, coiled up in their interior, a long filament, often serrated at its edges, and attached by its broader extremity to a sort of membranous introversion of the sac which lies in its axis. On pressure the sacs give way, the axial membranous introverted portion is suddenly everted, and the coiled filament driven out to its utmost length. Whether this action is accompanied by any emptying of the fluid contents of the sac does not appear to be certain. Nor do we know whether the fluid has any peculiar properties; the extreme irritation produced upon the human skin by these "thread cells," or, as they have been fitly termed, "urticating organs," and which has been supposed to arise from some acridity in the fluid, being quite as readily intelligible on the supposition that their action is purely mechanical. So far as I have been able to observe, the stinging powers possessed by these creatures are nearly in the ratio of the size and coarseness of the thread of their thread cells; the *Physalia*, the most terrible of all, being remarkable for the large dimensions of these organs, while those *Cœlenterata* in which the thread cells are small and the thread fine, never produce cortication.

The *Cœlenterata* possess no heart or blood-vessels distinct from the ramifications of the general cavity of the body. The existence of a nervous system has not been demonstrated in any of the members of one of their two divisions, and is exceedingly doubtful in the majority of the other. They fall into two very natural sub-kingdoms, in the one of which, the *Hydrozoa*, the wall of the alimentary canal is not separated from that of the general cavity of the body, and the reproductive organs are developed as external processes from the body; in the other—the *Actinozoa*—the alimentary canal, while freely communicating with the general cavity of the body, is suspended within it; so that its walls are completely distinct from those of the body. The reproductive organs, again, in this division, are internal, being invariably developed on the lateral walls of the spaces which separate the parietes of the alimentary canal from those of the body.

The Sea Anemone, or *Actinia*, is the type of the latter of these divisions—the common fresh-water *Hydra*, of the former, to which I propose to confine myself in the present lecture.

The *Hydra* has a sub-cylindrical or pyriform body, usually suspended by a somewhat expanded base to aquatic plants, but capable of changing its position; and presenting at the opposite extremity a short conical termination, whose apex exhibits the aperture of the mouth, while, from around its base, a number of tentacles are produced, and ordinarily hang down like slender filamentous grapnels in the water. They are highly contractile, and wonderfully strong for their delicate and fragile appearance, tenaciously adhering to any prey that may come within their reach, and doubtless aided by the paralyzing effect of the multitudinous threads darted into the body of the victim from the thread-cells, with which they are richly covered, instantaneously dragging it to the mouth. Here it is slowly forced into the digestive cavity, and, the nutritive matters being rapidly extracted, the indigestible parts are rejected by the way they entered. The voracity of these animals would be kept within narrow bounds by the small size which they can attain, were it not for their almost indefinite power of increase by gemmation. In a well-fed *Hydra*, in fact, a little prominence or bud soon makes its appearance upon the side of the body, and, gradually increasing in size, assumes the form and dimensions of its originator. Sometimes the zooid thus developed detaches itself at once; but it may happen that other zooids are produced either from it or from the original *Hydra*, before its separation, and the whole mass then becomes a tree-like, compound animal. This condition, however, is not normal, the *Hydra*-zooids ordinarily becoming isolated and independent. No limit appears to exist to the repetition of the budding process under favourable conditions, and thus an immense mass of zooids, all apparently individual and independent, but, in reality, the product of a single ovum, may be produced. A totally distinct process of true generative reproduction, however, ultimately takes place. Spermatozoa are developed in protruberances, which make their appearance below the tentacles, and ova in similar processes, which arise near the base. The ova ultimately develope a curious spinose coat.

Besides these natural modes of increase and multiplication, the well-known experiments of the Abbé de Trembley have demonstrated the great tenacity of life, and the wonderful regenerative powers of the *Hydra*, comparatively small segments of whose body have been shown to be capable of developing themselves into perfect *Hydræ*. The animal may even be turned inside out without suffering immediate inconvenience, though we may be permitted to doubt the often-repeated assertion, that the outer layer of the body at once takes on the functions of the inner, and *vice versâ*.

The body of the *Hydra* is essentially a sac composed of two membranes—the endoderm and ectoderm, in close apposition, and presenting their free surfaces, the one to the outer world, the other to the cavity of the body. The membranes differ but little in structure. Each consists of a vacuolated tissue; the outer layer, or ectoderm, containing more thread-cells; the inner, or endoderm, on the other hand, exhibiting masses of brown, or brown and green, pigment granules. The latter have been shown to contain chlorophyl. The ectoderm and endoderm meet and are continuous at the oral margins. The tentacles are diverticula of both, and, therefore, present a canal continuous with the general cavity of the body; which, however, is at first hardly distinguishable, in consequence of the extreme vacuolation of the inner membrane, and consequent narrowing of its included cavity. The outer membrane of the tentacles is produced at intervals into regular nodules, in which great numbers of thread-cells are developed. The reproductive elements, whether spermatozoa or ova, are ultimately situated between the inner and the outer membranes of the body, as is the case in all *Cœlenterata*; but here, as in other *Hydrozoa*, I have been unable to satisfy myself whether their first development takes place exclusively within the substance of the ectoderm, or, at the same time, in that of a portion of the endoderm.

No group of animals exemplifies the law of unity of organization in a more remarkable manner than this; for though the diversity of form presented by the *Hydrozoa* is very great, yet in all we have the groundwork of the body constituted as in *Hydra*, by a double-walled sac; and all the organs, however

(a) This general law of structure was enunciated for the *Hydrozoa* in my memoir on the Anatomy of the Medusæ, (Philosophical Transactions, 1849,) and was extended to the *Actinozoa* in my report upon the structure of the Acalephæ, read before the British Association in 1851. My friend Professor Allman, adopted and confirmed the generalisation in his valuable Memoir on *Cordylophora*, (Philosophical Transactions, 1853,) and has proposed the terms *ectoderm* and *endoderm* for the two membranes in question, names which I gladly adopt.

unlike one another, are processes of the sac (in some few and unimportant cases, of the endoderm or ectoderm alone) which have undergone special modifications. At the same time the wants and mode of life of even the most dissimilar forms are so similar, that it would seem in vain to seek for any mere teleological explanation of the multitudinous variations into which the common plan is elaborated. Five principal groups of such variations may be distinguished under the denominations of the *Hydridæ*, *Sertularidæ*, *Diphydæ*, *Physiophoridæ*, and *Lucernaridæ*.

1. The *Hydridæ* receive their name from the *Hydra* just now described, the best known member of the group. They are fixed, and usually form compound aggregations by gemmation, the genus *Hydra* standing almost alone in its normal simplicity and in the rudimentary power of locomotion which it possesses. In the other *Hydridæ*, as the *Corynidæ* and *Tubulariadæ*, the Polypes remain united together by a common base, or "Cœnosarc," (Allman,) which may either remain soft, as in many of the *Corynidæ*, or, as in the *Tubulariadæ*, it may have the outer layer of its ectoderm so modified as to constitute a hard case, to which we may conveniently, with Professor Allman, restrict the term "polypary."

The genus *Hydractinia* appears to present a curiously intermediate condition, the chitinous thickening of the ectoderm taking place only in particular parts of the cœnosarc, and here forming singular spire-like projections.

In none of the *Hydridæ* does the hardened outer layer of the ectoderm extend over the base of the Polypes, forming, by its detachment from the inner layer, a cup or cell; and it is by this circumstance that they are fundamentally distinguished from the next group.

In the *Corynidæ*, again, the tentacula are not arranged in a single transverse series, as in *Hydra*, but are usually scattered more or less irregularly over the surface of the Polype; while in *Tubularia* there are two transverse rows of tentacles, an upper shorter and a lower longer.

The Reproductive organs, whose extreme simplicity in *Hydra* has been already noticed, attain in many of the *Corynidæ* and *Tubulariadæ* to the condition of zooids, sometimes becoming detached, and swimming about freely before discharging their products. These free zooids have always the form of a bell or disk, from whose centre a pyriform or oval body—either a closed sac or an open-mouthed polype (b)—is suspended; and they have been regarded as distinct animals, and grouped together with other forms of *Hydrozoa* under the head of *Medusæ*. The bell possesses considerable contractility, and at each contraction, the water which fills its cavity is, of course, forced out, and the bell itself is thereby propelled in the opposite direction; hence it serves as a natatorial organ, and each medusiform Zooid may be said to be composed of a *polype* suspended in the axis of a *natatorial organ*. Medusiform reproductive Zooids may be developed from almost any part of the cœnosarc in the *Corynidæ;* but in *Tubularia* they are produced from the bases of the polypes between the upper and lower series of tentacles. In all cases their mode of origin is the same, and they commence as small cœcal processes of the ectoderm and endoderm, enclosing an internal cavity continuous with that of the body, and usually, like it, richly ciliated. When this process has attained a certain size, its distal wall becomes thickened, and projects as a sort of rounded boss into the cavity, which, in consequence, becomes cup-shaped. As the process enlarges, the upper part of the cup-shaped cavity extends between the rounded central boss and the outer wall, under the form of four canals, which run up parallel with the axis of the process, but stop short of its extremity. Their cœcal ends then send out lateral processes, so as to become T-shaped, and ultimately the lateral processes unite together, so as to give rise to a circular canal uniting the ends of the four longitudinal canals. Contemporaneously with these changes the axis of the boss becomes hollowed out by a canal continuous with the original cavity of the process, and like it lined by the endoderm. A separation now takes place between the central and peripheral portions of the thickened boss, commencing at the distal extremity, and extending down very nearly to the proximal end of the boss, so as to leave the thick central portion, enclosing the central cavity, attached to the thin peripheral portion (which remains as the wall of the cavity of the bell) only at its proximal extremity. In the perfect condition of the Zooid thus produced, the endoderm lines the cavity of the peduncle by which it is attached, the canals, and the central cavity of the suspended axial body; while the ectoderm forms the whole of the outer walls of both natatorial organ and central sac. It is in the latter that the ova or spermatozoa are eventually developed, so that essentially this apparently complex reproductive apparatus is identical with the simple specialized part of the general wall of the body in *Hydra*. Intermediate conditions of the reproductive apparatus are presented by *Cordylophora* and *Tubularia*. In the former, the development of the Medusiform Zooid proceeds so far as the production of a sac with canals; which, however, instead of remaining straight and uniting only at the ends by a circular canal, ramify irregularly and end in cœca. (c)

The reproductive elements are developed within the boss without its separation as a sac from the walls; and the whole organ is never detached as a free Medusiform Zooid. In *Tubularia*, a more completely medusiform body is developed, but is never detached. Taking the *Hydridæ* alone, then, we have the most gradual transition in the reproductive apparatus from the unquestionable *organs* of *Hydra* to free swimming and independent *Generative Zooids* in the *Corynidæ;* and, if we are to adopt the idea that the latter are individuals, we shall be logically bound to maintain that the ovaries and testes of Hydra are also individuals. (d)

2. *Sertularidæ.*—The members of this division are all composite,—the numerous digestive zooids, or polypes, developed from the original germ remaining always attached to the common cœnosarc. The polypes have a single row of tentacles, arranged around the mouth. The outer layer of the ectoderm is invariably hard and horny in its texture, and is not infrequently separated from the inner layer at intervals; so as, in the *Companulariæ*, to give the stems and branches a moniliform appearance. But the most remarkable feature in the structure of the *Sertularidæ* is, the possession of a "cell" surrounding the base of each Polype, and usually capable of receiving it when retracted. The development of this cell at once distinguishes it from the not altogether dissimilar "bract" which we shall meet with in the *Diphydæ* and *Physophoridæ*. A Sertularian Polype bud is a simple process of the cœnosarc, which gradually increases in size, and assumes an oval or pyriform shape, gradually pushing forth tentacular processes at its distal extremity. Before this takes place, however, the outer layer of the ectoderm has assumed its characteristic hardness, and becomes separated as a distinct, structureless, transparent, capsular membrane from the surface of the inner layer. As development proceeds, the capsule opens at the extremity, and the Polype, whose outer wall now represents only the inner layer of the endoderm, remains surrounded by a cup. In some *Sertularidæ* (*Sertularia*, *Dynamena*), the margins of the cells are produced into membranous valves; and in the genus *Plumularia*, we find special organs of offence in the *nematophores* (Busk) processes of the cœnosarc in which many large thread-cells are developed, arranged around the cells, or on the branches between the cells.

The reproductive organs present even greater diversity than in the preceding group. In *Plumularia* they are simple fixed sacs, without canals, or any approach to the medusiform structure. In the *Campanulariæ*, processes are developed, usually in the angle between a polype and the stem of the cœnosarc, which attain considerable dimensions, the outer layer of the ectoderm becoming widely separated from the inner at the sides but remaining attached to it distally, so that a sort of pyriform case is formed, traversed by an axis constituted by the inner layer of the ectoderm and the endoderm, and containing a cavity, closed distally, but in free communication with that of the cœnosarc, proximally; on the sides of this axis cœcal processes are developed one above another. The uppermost gradually assume the figure of a medusiform zooid, and then break through the upper part of the outer layer of the ectoderm. In *Campanularia geniculata*, their central sae developes its reproductive products in this position, and while still attached to the axis; but in *Campanularia gelatinosa*, the central sac opens at the extremity, and becomes

(b) I use the term *polype* to denote the digestive organ of a Hydrozoon.

(c) Prof. Allman "On the Anatomy and Physiology of Cordylophora." Philosophical Transactions. 1853.

(d) Prof. Leuckart, the most thorough and consistent advocate of the doctrine that the independent parts of animals are individuals, does not seem to shrink from such a conclusion. See his able Essay, "Ueber die Polymorphismus der Individuen."

the polype of a medusiform zooid, while, at the margins of the natatorial organ, the Lithocysts, or "cysticles," so characteristic of the ordinary medusæ, make their appearance. The zooid now becomes detached, swims away as a "medusa," and the ova, or spermatozoa, are in all probability developed within the walls of its polype, but it is very possible that they may arise, as in many other "Medusæ" with whose origin we are unacquainted, in the walls of the canals of the natatorial organ.

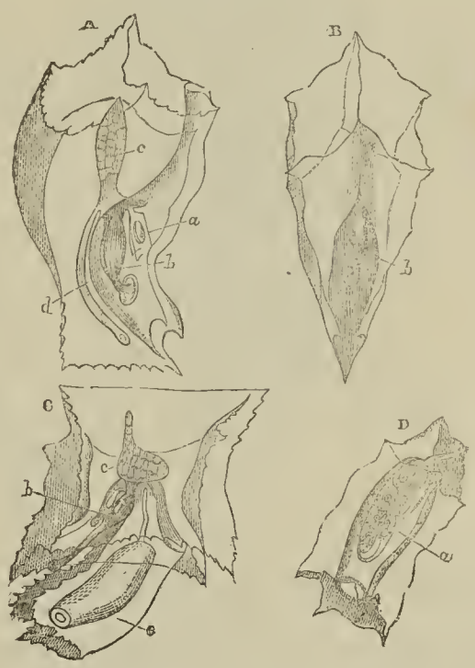
3. The *Diphydæ* are among the most remarkable and beautiful inhabitants of the ocean, to whose warmer regions, they, like the *Physophoridæ*, are principally confined. They are free swimmers in the adult state, and, probably, at all times of their existence; but, while actively locomotive by means of the contractions of the natatorial organs with which they are provided, they possess no special supporting apparatus or "float," such as we shall find developed in the *Physophoridæ*. The typical genus, *Diphyes*, consists of a long and delicate tube-like cœnosarc, provided at one end with two large natatorial organs of a remarkably firm consistence, and usually very elegant in shape, being pointed at one extremity, truncated at the other, and having much the outline of a mitre. The one of these organs is terminal, and contains, besides its natatorial cavity, a second parallel cavity which receives the end of the cœnosarc, and may be called the cœnosarcal chamber. The cœnosarc enters the substance of the natatorial organ at the upper end of the "cœnosarcal chamber," and there dilates into a small cœcum, the "sacculus," which is, in fact, the remains of the original cavity of the body of the embryo *Diphyes*. From the sacculus a narrow canal proceeds, and divides into the four canals of the natatorial cavity, which are, as usual, united round its aperture by a circular canal. A narrow membranous fold or diaphragm projects inwards around the margins of the aperture of the natatorial cavity. The apex of the second natatorial organ, which is constructed on precisely the same plan as the first, is inserted into the cœnosarcal chamber, by the side of the cœnosarc, the latter lying, in fact, in a canal formed by plates which arise from the back of the second natatorial organ, and form an arch along the greater part of its length. The tubular neck by which the apex of the second natatorial organ is attached to the cœnosarc is so delicate, that the slightest violence often suffices to rupture it, and then the two organs become detached, the second swimming away alone, while the first remains connected with the cœnosarc. It was this ready separation which gave rise to the idea that each Diphyes was two animals temporarily united. The cœnosarc is exceedingly contractile, and is capable of great variation in length, being sometimes entirely retracted into the canal and chamber of the natatorial pieces, sometimes trailing for the length of two or three inches behind them in their rapid movements, as a long and elegant chaplet. The free end of the cœnosarc is constituted by a polype differing from those of the preceding orders of the *Hydrozoa* in possessing no tentacula around or near the oral aperture, which is very flexible, and usually trumpet-shaped, in consequence of the eversion of its delicate lips.

Within the polype the endoderm is raised into villus-like processes, and is much thickened, especially towards the proximal end. This is connected with the cœnosarc by a narrow peduncle, to which are attached a very remarkable *prehensile organ* or *tentacle;* one or more *reproductive organs;* and, lastly, a transparent, variously-shaped lamina, composed of the same firm transparent substance as the natatorial organ, the *bract*.

The *tentacle* is a long filiform process of the peduncle, capable of great elongation and contraction, in the latter condition having its ectoderm thrown into very sharp transverse folds. On one side it gives off at intervals a great number of branches, each of which ends in an oval, or rather reniform sac, terminated by a long filament, which is usually coiled up into a spiral. One side of the wall of the sac is much thickened, and a great number of large thread cells, disposed transversely to the axis of the sac, are developed in the thickening. In the base of the sac, several still larger thread-cells are disposed obliquely to its axis. The terminal filament again is closely beset with minute thread-cells, so that the whole apparatus must constitute a very efficient weapon of offence. The *reproductive organs* arise as cœcal processes of the peduncle, and running through the successive stages of development which have been described above, eventually become medusiform zooids, in which the reproductive products are developed before detachment. So far as I have observed, all the reproductive organs of each *Diphyes* are of the same sex. The *Bract*, lastly, is for the most part the result of an excessive development of the ectoderm of the greater part of the circumference of the peduncle, but it contains a short cœcal diverticulum of the general cavity, lined as usual by the endoderm.

Passing from the free to the attached extremity of the cœnosarc, we find at first a succession of polypes, with their tentacles, reproductive organs, and bracts of precisely the same character as the terminal one, fixed at tolerably regular intervals, the absolute number varying of course with its length. But near the attached end the polypes gradually appear to be less and less perfect; the oral extremity is closed; the tentacle is short; the reproductive organ a mere bud; the bract, also, a mere flattened, bud-like process, until at length, we find nothing but a closely appressed series of short cœcal diverticula of the cœnosarc, representing the rudiments of future polypes. It is clear, therefore, that the cœnosarc grows at its attached end, and that the polypes and their appendages take their origin at this point, gradually attaining perfection as they become removed from it.

Fig. 1.



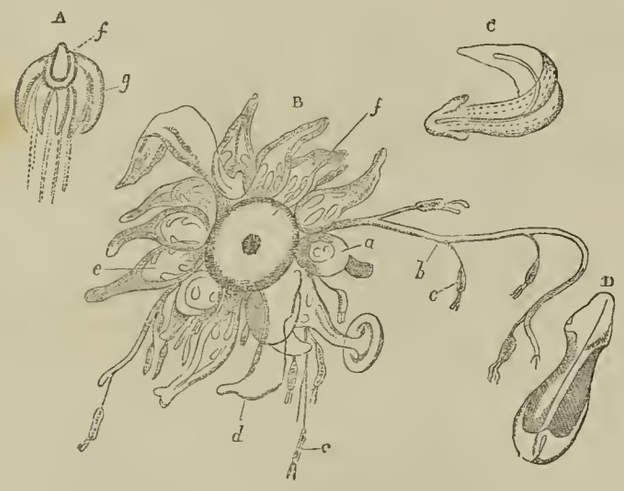
Monogastric *Diphydæ*.
A. B. *Sphenia*. C. D. *Cuboides*.
a. Reproductive Sac.
b. Polype.
c. Sacculus and process (*d*.)
e. Natatorial (? reproductive) organ.

Such is the structure of the genus *Diphyes*, but there are other *Diphydæ*, in which only one polype or stomach exists, and which have, therefore, been called, in contradistinction to the former, *polygastric*, genera—*monogastric Diphydæ*. These forms (*Eudoxia*, *Cuboides*, etc.) are also distinguished by possessing no natatorial cavity in the anterior piece, which resembles much more closely the bract of one of the Polypes of *Diphyes* or its allies. It is now very probable, in fact, from the researches of Leuckart and others, that this anterior piece really is a bract, the monogastric *Diphydæ*, being nothing but the polypes and their appendages of polygastric *Diphydæ*, which have become detached and independent.

4. The *Physophoridæ* are essentially similar in the general features of their organization to the *Diphydæ;* but they differ from them in that the extremity of the cœnosarc, which corresponds with what has been just now called the attached extremity, is not imbedded in the substance of a natatorial organ, but is free and dilated, so as to form a larger or smaller globular, pyriform, irregular, or flattened, enlargement. The distal extremity of this enlargement is, as it were, pushed in, so as to form a sac, which is full of air, and communicates with the exterior by a small pore, which is ordinarily closed, and would in some cases appear to become permanently shut. The dilated end of the cœnosarc is thus converted into a float, sometimes of very considerable dimensions, by means of which the occasionally large mass formed by the rest of the

cœnosarc with its appendages is kept at the surface of the water without any exertion on the part of the animal itself. Below the float a series of natatorial organs, of the same structure as those of the *Diphydæ*, are attached in many forms (*Physophora, Agalma, Apolemia*), while in others (*Physalia, Velella*) they are absent. These are often succeeded (*Agalma, e. g.*) by a series of large bracts; while beyond these, polypes, with their tentacles and reproductive organs, interspersed with imperfectly developed polypes—regarded by some as special organs of touch—are arranged in variable order. Three genera of the *Physophoridæ* are particularly worthy of notice: the *Physalia*, whose air vesicle may attain the length of eight or nine inches, while its formidable tentacles hang down for as many feet, inflicting instantaneous death upon the smaller animals with which they come into contact, and giving rise to no small amount of pain and irritation, even in man; and the *Velella* and *Porpita*, in which the texture of the air vesicle is so exceedingly firm, as to give it the appearance of an internal shell, while its cavity is subdivided into numerous chambers. Originally, however, the "shell" of the *Vetella* is a perfectly simple air-vesicle, like that of any other Physophorid.

Fig. 2.



Athorybia.
A. Lateral view. B. From above.
C. D. Bracts.
a. Polypes. *b.* Tentacles. *c.* Sacs of the tentacles. *d.* Bracts.
e. Villi, *f.* Float.

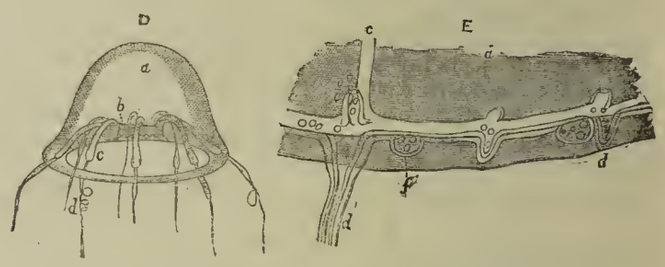
The reproductive organs of *Physophoridæ* vary much more in their structure than do those of the *Diphydæ*, the male and female apparatus, even in the same species, not always being alike in structure. Thus, the female organs in *Athorybia* are sacs containing a single ovum, arrested, as it were, in the first stage towards the medusiform condition, while the male organs become completely medusiform, but are probably not detached. In *Physalia*, on the other hand, the male organs are rudimentary, while the female organs become medusiform and probably free. In *Velella*, the reproductive function is confided to free medusiform Zooids.

5. *Lucernaridæ.*—In those forms of *Hydrozoa* provided with natatorial organs apart from the reproductive apparatus, with which we have hitherto been concerned, viz.: the *Diphydæ* and *Physophoridæ*, the natatorial organ is *lateral* in relation to the cœnosarc and its polypes. The latter, therefore, never occupy the axis of the natatorial organ. In the very peculiar genus *Lucernaria*, however, we have a *Hydrozoon* in which the polype occupies the centre of an expanded disc, the two presenting essentially the same structure and relations as in the Medusiform Zooids of the other divisions. Although the *Lucernaria* is fixed then, we may rightly term its disc a natatorial organ. The wide polype-stomach opens into a cavity common to it with a series of canals, which radiate towards the margins of the disc, and here communicate with the cavities of the marginal tentacles. The partitions between their orifices give rise to a series of minute tentacular filaments which project into the general cavity, and whose homologues are to be found in the ordinary *Medusæ*. In the upper walls of the canals, composed like the rest of the body of the endoderm and ectoderm, the reproductive products are developed precisely as they are in the covered-eyed Medusæ; in fact, a *Lucernaria* is in all essential respects comparable to an *Aurelia*, or other *Medusa* fixed by the middle of the upper surface of its disc.

I have preferred the term *Lucernariadæ* to that of *Medusæ*, more usually applied to the present group. The *Medusidæ* of authors, in fact, consist of two groups, the *naked-eyed* (*Gymnophthalmata*) and the *covered-eyed* (*Steganophthalmata*) of Forbes. We shall see immediately, however, that *Aurelia*, like the other "covered-eyed" Medusæ, is a derivative zooid form of an animal essentially resembling *Lucernaria*; while, so far as regards the naked-eyed *Medusæ*, we have no evidence that any genus except *Œginopsis* is other than the reproductive Zocid of one of the *Hydridæ* or *Sertularidæ*; and, although I shall immediately describe the structure of the *Gymnopthalmata* in this place, yet I wish it to be clearly understood that I regard the true place of the majority of them as an open question.

It seems better, therefore, to avoid the term *Medusæ* as the denomination of an ascertained group, reserving it merely to denote medusiform creatures, of whose origin we are ignorant, but whose structure entitles them to a provisional place among the *Lucernariadæ*. As our knowledge increases we shall be able to arrange those *Medusæ* which are the zooids of *Hydridæ*, *Sertularidæ*, *Diphydæ*, or *Physophoridæ*, under their respective groups, while the rest will form the sub-sections of the *Lucernariadæ*, the first consisting of such forms as *Aurelia* and *Rhizostoma*, zooids developed by fission from fixed *Lucernariadæ*; the second consisting of such forms as *Œginopsis*, free *Lucernariadæ* developed at once from the ovum without any fixed state.

Fig. 3.



D. Gymnophthalmatous *Medusa*.
E. Portion of the Umbrel or natatorial organ.
a. Natatorial organ. *b.* Polype.
c. Reproductive organs. *d.* Tentacles.
e. Canals connecting circular vessel with exterior.
f. Lithocysts.

A naked-eyed Medusa consists essentially of a bell-shaped natatorial organ, provided with four or more radiating canals, which at the margin are united by a circular canal. The margin again is provided with tentacles, which may be either solid processes of the ectoderm or tubular diverticula of the circular canal; on its inner edge it usually sends a narrow, muscular diaphragm inwards. On its outer or under edge it is usually beset, at regular intervals, with the peculiar bodies which are by some called eyes, by others regarded as auditory organs. These are oval sacs developed from the ectoderm, and containing in their interior one or many spherical particles of carbonate of lime, each invested by a delicate cell. The sacs are in close contact with the circular canal, and, in immediate relation with them, large patches of pigment granules are often observable. As no trace of any nervous system has yet been detected in the *Medusæ*, it seems difficult to regard these organs as having any sensory function, although the coloured spots are very like the eyes of some of the lower animals, and the sacs nearly resemble the auditory organs of the Mollusca. Under these circumstances, the term "lithocyst," or "cysticle," [as suggested by Professor Owen (e)] may be conveniently applied to these organs. The reproductive organs of the *Gymnophthalmata* are usually simple saccular dilatations either of the walls of the polype or of the radiating canals of the natatorial organ; but in some cases, as in the genus *Willsia*, medusiform Zooids are developed. Professor Kölliker has recorded the occurrence of fission in *Stomobrachium*.

The Steganophthalmatous *Medusæ* appear to be, without ex-

(e) Lectures on the Invertebrata. 2nd Edition. Pp. 169.—In the same place, Professor Owen thinks it worth while to criticize, at some length, a verbal ambiguity in my Memoir on the Medusæ, published in 1849. The title-page of that Memoir would have reminded most readers, that sixteen thousand miles of sea separated me from the proofs when it was printed.

ception, the reproductive Zooids of *Hydrozoa*, which essentially resemble *Lucernaria;* being fixed by a short stalk, which expands into a bell-shaped disc, provided with marginal tentacles, and from whose centre a quadrilateral polype arises. These *Hydræ-tubæ*, as they have been called, may increase by gemmation to almost any extent, displaying no indications of change, or tendency towards the development of reproductive organs. At length, however, a series of transverse constrictions make their appearance below the tentacles, which increase in depth, so as at length to break up the body into a pile of cup-shaped, superimposed discs. The discs now exhibit independent contractile movements, and, becoming detached from one another, swim away as free Zooids, leaving the lower part of the body as a sort of stolon, which may reproduce a natatorial organ and polype-stomach, and ultimately repeat the same series of changes.

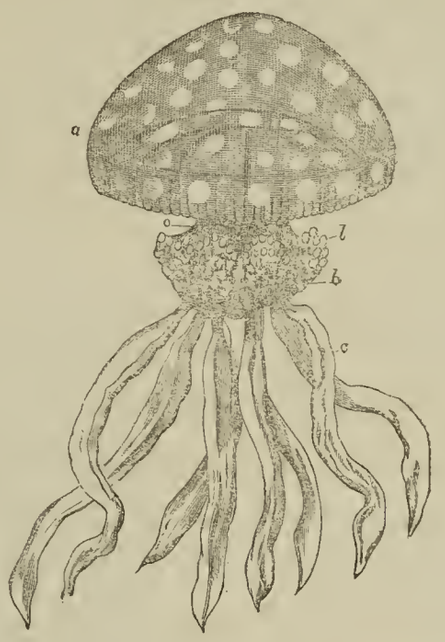
The medusiform zooids thus produced differ from those already described in several particulars. Their natatorial organ, or umbrella, is much more flattened than is usually the case in the *Gymnophthalmata;* its edges are divided into at least eight lobes, and present no well-formed diaphragm; there are at least eight radiating canals, and these, besides opening into a marginal canal from which numerous tentacles are developed, give off branches which unite, forming a close meshwork, in the outer part of the organ. Each of the radiating canals again passes at the margin into a short process or peduncle, seated in the notch between two of the lobes, at the extremity of which a large lithocyst is situated. The contents of this organ are different, the hard particles being angular, or rod-like, instead of rounded; not inclosed in special membranous cells; and in some cases, (*Aurelia capillata*, *e.g.*,) at any rate, having a different chemical composition from those in the *Gymnophthalmata*. The whole organ is enveloped in a kind of hood, which arches over the space between the lobes at its sides, and on the dorsal surface, at the base of this hood, is a funnel-shaped depression which communicates with the radiating canal. Apertures whereby the canals of the natatorial organ communicate directly with the exterior exist also in some *Gymnophthalmata*, but they are differently situated.

The radiating canals of the natatorial organ all start from a wide cavity in its centre, which receives the products of digestion, and whose inferior wall, very thin and delicate for the greater part of its extent, is produced in a number of symmetrically arranged sacculations, (usually four,) in which the ova or spermatozoa are developed. The reproductive organs are of a different hue from the rest of the body, and are sometimes brightly coloured, whence the appearance of a coloured cross, which the transparent, discoid, natatorial organ of most of these Medusæ exhibits. Each zooid is unisexual; but it is not known whether all those which spring from a single "Hydra-tuba" are of one sex, or of different sexes.

The digestive organs present two very distinct types of construction in the *Steganophthalmata*. In the one, of which the common *Aurelia* is an example, a single great polype, with its oral aperture produced into membranous folds, depends from the centre of the natatorial organ. It is quadrilateral superiorly, and its angles form four thickened pillars, which radiate into the under-surface of the umbrella, becoming a part of the lower wall of the wide central cavity, and dividing it into as many compartments. The thin membrane uniting the pillars is produced into folds and plaits, and becomes the seat of the reproductive organs, as just now described. These organs, therefore, would hang down freely on the under-surface of the disc, were it not that the edges of the pillars become produced, and thus form a deep chamber, in which the genitalia are lodged, and which eventually communicates with the exterior by only a narrow circular opening.

The digestive apparatus of the other division, including the genera *Cephea*, *Rhizostoma*, etc., stands in the same relation to that of *Aurelia*, as the tree-like aggregate of Polypes in a Sertularian or Physophorid has to the simple Polype of *Hydra*. In the *Rhizostomidæ*, in fact, a great mass depends from the natatorial organ, connected by four pillars with its under surface. The four pillars are, however, very different in their nature from those in *Aurelia*. They are perfectly free, *i.e.*, not united by any membrane, and each contains a canal which opens into the wide central chamber of the disc—which is completed below by a delicate membranous wall, strengthened by four narrow thickened bands, one from each pillar, which unite in the centre. The genitalia are developed in sacculations of this membranous wall, which run parallel with the supporting bands. The pillars are united below by a thick, flattened, quadrate plate, which they suspend at some distance below the under surface of the natatorial organ; the genitalia in the *Rhizostomidæ*, therefore, are suspended, not in four chambers, as in *Aurelia*, but in a single great chamber, with four wide openings, one between each pair of pillars, whose roof is formed by the genital organs and the under wall of the great central cavity of the natatorial organ, while its floor is constituted by the quadrate plate which unites the four pillars together. The latter divide and sub-divide below their union, until a great mass is produced, whose ultimate ramuscules are fringed by a membrana produced into short tentacles at its edges, which may or may not be so arranged as to form distinct and separate polypes, but which are assuredly the homologues of the polypes in other *Hydrozoa*.

Fig. 4.



Steganophthalmatous Rhizostome *Medusa*. (*Cephea.*)
a. Natatorial organ.
b. Polypes.
c. Terminal tentacles.
l. Other tentacles.
o. Pillars.

The canals subdivide in the same way as the pillars, and eventually open at the bottom of the grooves left between the fringing membranes of the ramuscules, or when distinct polypes exist, in them. The cavity of the groove or of the polype is, as in other cases, the digestive cavity, the pillars with their canals corresponding with the cœnosarc of the ordinary Hydrozoa. Peculiar large tentacles are scattered over the pillars and their branches, which in *Cephea* are terminated by very long and thick organs of the same kind.

Such is a sketch of the more important structural features of the *Hydrozoa*. Their course of development may be stated in a few words. The yelk, after undergoing the ordinary process of division, becomes a ciliated, double-walled sac, and, in this state, leaves the vitellary membrane. In the *Aurelia*, the early stages of development are passed in peculiar marsupial pouches, developed from the buccal membrane; and in *Tubularia*, the entire conversion of the embryo into a tentaculated larva, differing from the adult form chiefly in its freedom, takes place within the medusiform generative zooid; but usually the embryo appears to be quite free. In the *Hydridæ*, *Sertularidæ*, and most *Lucernaridæ* it soon loses its cilia, fixes itself by one extremity, and, developing tentacles and a mouth at the other, becomes the founder of a new race. In the *Diphydæ*, on the other hand, it appears from Gegenbaur's recent observations, that the blastodermic sac first gives rise to a natatorial organ, and afterwards to the polypes and their appendages. In the *Physophoridæ* the earliest stages of development are not certainly known, but the air-vesicle is formed very early, and is very probably the earliest structure developed, the natatorial organs and polypes, etc., appearing subsequently.

ORIGINAL COMMUNICATIONS.

ARMY MEDICAL REPORTS.

PRIMARY AMPUTATIONS IN THE CRIMEA.

By W. H. FLOWER.
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Assistant-Surgeon, 63rd Regiment.

It appears from the discussions which have taken place at several of the Medical Societies, during the past winter, especially that at the Medical and Chirurgical Society on April 8, that there is a general impression among the Profession that the primary amputations, particularly those of the thigh, performed during the recent campaign in the Crimea, have been remarkably fatal in their results; indeed, it has been more than once asserted that scarcely a case of recovery after the latter operation has occurred. I do not know upon what grounds this unfavourable opinion has been formed, but as its merits can only be decided by the publication of the actual experience of the Medical Officers of the Army, perhaps the following table, which includes all the cases in which primary amputation was performed in the 63rd Regiment, and two companies of the 46th Regiment, under the same Medical charge, from the landing in the Crimea to December 12, derived from notes taken at the time, may not be without interest.

I am aware that it would be unsafe to form any general conclusions from so limited a number of cases; but if this be a fair sample of the experience of other regiments, and I have no reason to believe it is not, I think that it will be allowed to give as fair a proportion of recoveries as would be met with in ordinary practice, either civil or military.

Of the three cases noted as fatal, the death of No. 6 was, I believe, totally unconnected with the operation; No. 8 was hopeless from the first; and the cause of death in No. 9, so soon after the operation, is rather difficult to account for; but as it was certainly not hæmorrhage, it must either have been the shock of the injury and amputation upon a very debilitated constitution, or he must have received some internal injury, which, as we had no opportunity of performing a post-mortem examination, we were not able to ascertain.

No.	Name.	Age.	Regiment.	Injury.	Date of Injury.	Operation.	Hours after Injury.	Result.	Date of Discharge from the Service.
1	John Leonard	21	63rd	Compound comminuted fracture of right ankle; round shot.	Oct. 27	Flap amputation of leg.	2	Recovered.	August 8, 1855.
2	Daniel Unsworth ..	22	46th	Compound comminuted fracture of right tibia and fibula; piece of shell.	Nov. 5	Flap amputation of lower third of thigh.	6	Recovered.	May 22, 1855.
3	Patrick Coleman....	20	63rd	Compound comminuted fracture of right radius and ulna; grape shot.	Nov. 5	Flap amputation of fore-arm.	4	Recovered.	March 13, 1855.
4	Michael Murphy....	25	63rd	Lacerated wound of knee-joint; piece of shell.	Nov. 5	Circular amputation of lower third of thigh.	32	Recovered.	July 31, 1855.
5	Joseph Conelly	26	46th	Compound comminuted fracture of tibia and fibula; grape shot.	Nov. 5	Flap amputation of leg.	10	Recovered.	July 3, 1855.
6	Hugh Capel	26	46th	Compound comminuted fracture of lower third of humerus; rifle ball.	Nov. 5	Circular amputation of arm.	26	Died at Scutari, Jan. 16, 1855.	—
7	Patrick Lipper	23	63rd	Compound comminuted fracture of lower end of femur; grape shot.	Nov. 5	Flap amputation of middle of thigh.	8	Recovered.	August 1, 1855.
8	Martin Dougher	25	63rd	Compound comminuted fracture of right tibia and fibula, close to the knee; ditto of left hand and wrist; ditto of right ulna.	Nov. 5	Flap amputation of lower third of thigh. Flap amputation of forearm.	6	Died on the voyage to Scutari.	—
9	— O'Donnell	30	63rd	Shell wound of right hand and wrist.	Dec. 2	Circular amputation four inches above wrist.	14	Died ten hours after operation.	—

ON THE CLOSURE OF ARTERIES AT THEIR ORIGIN, AND ON SOME MORBID CHANGES OF THE HEART.

By THOMAS HODGKIN, M.D.

[Read before the Harveian Society, April 3, 1856.]

(Continued from page 411.)

Although I am unable to produce the proofs furnished by inspection, that many of the various changes in the substance of the heart to which I have alluded were, as I have suspected, the results of closure or obstruction of the coronary arteries at their origins, in one or other of the modes which I have described, we may safely infer that they are for the most part rather gradually brought about. The histories of the cases, the duration of the symptoms, and the concomitant change in the form of the organ are all but decisive on this point. This view is almost equally sustained by *à priori* reasoning, for we can scarcely conceive the possibility of the persistence of the heart's action, were its muscular structure to become the seat of acute inflammation. It is next to impossible for a muscle in this state to be brought into action. As an instance of this, we notice the far greater difficulty of breathing in severe pleurodynia, or in inflammation of the diaphragm, than in pleuritis, pneumonia, or bronchitis. If we permit these examples to have any weight with us, we can scarcely conceive the possibility of acute inflammation of the muscular substance of the heart being set up to any considerable extent without causing immediate death by syncope. The production of such inflammation appears to be providentially guarded against by the want of susceptibility of this structure in the heart, as shown by the fact of both ventricles having been transfixed with a steel graver, which remained infixed in the substance of the heart for many days, during which the man survived with comparatively little suffering. I do not remember to have examined but one case, in which I found unequivocal evidence of the existence of acute inflammation of the muscular structure of the heart, and as a rarity, at least to myself, I may perhaps be allowed to relate it here. It is true that I have not, at least of late, searched among the records of cases inspected by others, but I have no doubt that parallel examples might be found; at the same time I must confess that I should require some very strong evidence of acute inflammation before I could fully admit that it had really existed,—it is so easy for a chronic alteration of structure, causing more or less of softening and preparing for rupture, to be confounded, in a tissue like that of the heart, with the effects of inflammation.

J. G., aged about 54 years, was clerk to the Excise, and had led rather a sedentary life. He was of temperate

habits, rather a remarkably small eater, but unusually corpulent. He was occasionally subject to husky cough in the winter, and was habitually rather short breathed. He had had one or more attacks of oppression of the chest and difficulty of breathing some months, or, perhaps, even years before his death, and he recognised his last illness as being of the same character. A few days before his death, I believe not more than ten, he had an attack of increased difficulty of breathing, with great oppression of the chest, accompanied with cough and some expectoration. It was considered that his affection consisted in a smart attack of bronchitis. He was bled repeatedly, by which he was considerably relieved. His bowels were gently opened with a mercurial purgative, and some mild salines were given in conjunction with ipecacuanha. The blood drawn was much cupped and buffed. On the 15th of the month, in the morning, he became much worse, and the oppression of the chest and dyspnœa were quite alarming; he had already lost about forty ounces of blood, and was now bled again to rather more than ʒxij. On this day Dr. H. was requested to see him, and did so about 9 p.m. The patient was then greatly relieved. He was up, and moved about his apartment, apparently without difficulty. His countenance was extremely pale, but without lividity or any expression of anxiety. The patient's obesity prevented any marked evidence being drawn from percussion, but the chest was not regarded as particularly dull, and respiration without rattle was heard on both sides. The pulse was very weak, and but little accelerated. The bowels were reported to be in a comfortable state. The ankles were slightly œdematous, and were reported to have been so for some time. The blood drawn in the morning of Thursday exhibited a very copious separation of serum; the crassamentum, however, was soft, but covered with a sizy coat of considerable thickness. As the patient expressed himself so decidedly better, further depletion was not thought necessary, but cupping was proposed in the event of a relapse taking place. It was difficult to account for the patient's audible and natural respiration on the supposition that the attack had chiefly consisted of bronchitis, although the Medical attendant had reported he had heard extensive mucous rattle. Some acute rheumatic affection was suspected, although its precise seat was not apparent. The next day he felt himself rather unwell, but the following day, Saturday, he was so much better as to sit up and attend to his accounts till nearly midnight, and persisted in his intention of going a journey of several miles on the following Monday. He rose in good time on Sunday morning, spoke cheerfully to his servant, and almost immediately after, while wiping his hands with a towel, was suddenly seized with oppression of breathing, sunk into his chair, and expired before any assistance could be brought. He was observed to breathe for a short time, but with difficulty, as he sat in the chair into which he had sunk when seized.

The examination was made the following afternoon by candlelight. The body was generally pale; the quantity of fat, both beneath the integuments and within the chest and abdomen was very large. There was a very little partial, old pleuritic adhesion on the right side posteriorly. There was some serous effusion into the cavity, evidently recent. The lung was pale, very slightly emphysematous, and universally pervaded with air, though very œdematous. The bronchial tubes did not appear to contain more than the usual quantity of mucus. The left pleura was quite free from adhesions. There was a considerable quantity of serum in this cavity. It was quite free from flakes of lymph, and the surface of the lung exhibited no appearance of maceration; the lung on this side exhibited the same character as the right. The pericardium contained a little serum, perhaps rather more than an ounce, slightly sanguinolent. The reflected pericardium was pale, but the close pericardium on the anterior surface of the heart, almost from the base to the apex, was reddened by numerous very minute red spots, appearing like slight ecchymosis, beneath it. On a part of this reddened surface was an extremely thin film of recent lymph, closely applied to the surface of the pericardium. Its free surface was minutely scabrous. The heart was moderately large, and very fat. Its cavities were not contracted, nor did they appear to be much distended. A section made across the heart near to the base and parallel to it, exhibited a remarkable appearance in the muscular substance: it appeared irregularly mottled, part being pale, close, and tolerably firm, apparently the result of an old attack of inflammation of the substance of the heart; other portions pale, but soft, and the remainder soft, but of a deeper colour (brownish-red, or livid).

The greater part of the septum of the ventricles was in the latter state. The substance of the heart was very lacerable, easily separable in the direction of its fibres, though it might be readily broken through in the opposite direction. The blood in the cavities of the heart was generally feebly coagulated, and a portion of coagulable lymph was separated from the colouring matter. Some smaller and firmer coagula were implicated in the carniæ columnæ in different parts. They were partly of a deep venous hue and partly brown, and bore considerable resemblance to the coagula in an inflamed vein. One of these coagula was situated on a part of the internal surface, corresponding to the ecchymosis before mentioned beneath the pericardium. The valves were all tolerably healthy for the patient's age. There was a small, thin, partial deposit of bone in one of the semi-lunar valves of the aorta, not sufficient to interfere with its office, and most perceptible on its inner surface. The aorta was of its natural size and colour, but exhibited some tendency to opaque deposit in spots beneath its lining membrane. There was no appearance of peritoneal inflammation, and no notable effusion into its cavity. The mucous membrane of the stomach was natural, but mottled by a little injection. The first part of the duodenum was more injected, apparently from congestion. The other portions of the alimentary canal, as far as they were examined, appeared quite healthy, and nearly free from congestion. The liver was rather large and pretty firm, with a good deal of blood in its veins. The gall bladder remarkably empty; the spleen moderately large and soft; the pancreas, imbedded in a mass of fat, was also rather soft, and its lobules were easily separable from each other. The left kidney was rather large, and perhaps a little firmer than is usual; the surface was smooth and separated with facility from the investing capsule. The right kidney was not examined. The bladder was contracted; the urine had not been examined during life. On reviewing this record, which was written long before the production of Dr. Ridge's cases, and when, in common with other inspectors, I did not pay sufficient attention to the coronary arteries, I feel strongly persuaded that this case belonged to the same group. The small deposit of bone on the inner surface of one of the semilunar valves renders it by no means improbable that the corresponding coronary artery was contracted at its origin. The very decided change in the substance of the heart was partly old and chronic, and was most likely advanced to some degree of fatty degeneration; but it was very evident that with the chronic alteration of texture there was also partial acute inflammation extending to the outer surface and producing consecutive partial pericarditis, and also affecting the internal surface, and allowing the blood in contact with it to become coagulated and adherent.

I do not venture to form a decided opinion as to the constitutional state of this patient, by which the occurrence of carditis was favoured, but I strongly suspect that it was rheumatic or gouty.

I shall have to revert to the fact that marked, though temporary relief, was obtained by bleeding. Although it has been my first object in writing this paper to invite the attention of my fellow-members to the closure of arteries at their origin and to the remarkable effects produced by this change on the substance of the heart when it occurs in the coronary arteries, I am very far from wishing it to be undersaood that the derangement of the heart's structure is invariably or even generally to be ascribed to this cause. Other circumstances by which these changes are either produced or promoted, are well worthy of attention, and it may tend to encourage the investigation of them, if I here advert to some of the influences which are believed to operate in such cases.

Among the most prominent of these, to which time and popular opinion have attached the greatest importance, are affections of the mind, both the sudden and the lasting. Of the former class many instances are recorded in connexion with terror, anger, joy, and the like. The suddenness as well as the violence with which emotions from these causes may take place, seems sufficiently to account either for very sudden death from rupture, or for speedy death from mischief set up as a consequence of some other immediate though less considerable injury. The effects of those causes which are of more chronic operation, such as lasting grief, disappointment,

anxiety, and the like, are much less obvious in their *modus operandi*, although their reality will scarcely be called in question. I am inclined to believe that they may in part operate indirectly through the respiration, which, being retarded, causes distension of the heart, the result of which will be serious or trivial according to the natural or acquired vigour or weakness of the organ. Some confirmation of this view may be deduced from the analogous operation of some physical causes, as, for example, in the production of heart disease, functional at first, but subsequently organic, in very delicate, anæmic females in whom we have imperfect respiration, and a weak heart oppressed with an overload of dilute blood. We have in like manner physical causes producing effects analogous to those of the violent mental emotions, as, for example, in excessive muscular efforts, as in rowing, lifting, and running.

By any of these the substance or the valves of the heart may at once be seriously injured, causing sudden death or protracted suffering.

If any doubt be entertained as to the operation of these influences producing a change in the muscular structure itself, I might appeal to the following facts and cases.

I have for years past noted in my inspections the occasional occurrence of a peculiar form of the heart. Instead of the bottom of the left ventricle having somewhat of a pointed shape—whence the name apex—it is blunt and rounded. I at one time attributed this form to that condition of the aortic valves which I many years since described as retroversion, and to which Drs. Elliotson and Corrigan have since given the more generally adopted appellation of permanent patency. I imagined that the ventricle, not being relieved by the valves, assumed this form from the continued pressure of the column of blood; but, in spite of this oppression, the vigour of a healthy ventricle will sometimes enable it to retain much of its normal form; and, on the other hand, without the operation of this valvular defect, the morbid texture of the heart may acquire this altered figure to the most exaggerated extent. The following case furnishes a striking example of this observation, as well as of degeneration from mental influences.

J. F., rather more than 40 years of age, was the subject of great mental, and of much continued, though not violent, bodily fatigue. He was likewise brought under the influence of various moral causes, which seriously and painfully affected him. In person he was spare but florid. He became a decided invalid about two or three months before his death, but was only confined to the house, and ultimately to his chamber, a very few days. While yet able to go from place to place, the effort was oppressive, and he walked very slowly. His countenance became livid. Heart rather than pulmonary disease was suspected by most whom he consulted; yet one of his friends was so impressed with the idea that his disease was pneumonia, that he was brought slightly under the influence of mercury for its relief. Great œdema of the lower extremities, and other forms of anasarca, came on as the end approached.

The inspection was made by Dr. King, with my assistance. We did not think it needful to open the head.

Both pleuræ were remarkably free from adhesions, and there was no appearance of recent pleuritis. The discoloured serous effusion was moderate in quantity, and, probably, for the most part cadaveric, with some sanguinolent transudation. Both lungs were slightly emphysematous, but very much gorged with blood. A part of this was probably cadaveric engorgement, but a considerable portion was not from this cause, being not only coagulated, but intimately united with the substance of the lung, constituting in fact pulmonary apoplexy. This condition was most striking and extensive in the lower part of the right lung. The pericardium appeared to be quite healthy, but the heart was prodigiously distended; the base remarkably broad, and the apex so blunt and rounded as nearly to give a semicircular form to the organ. In short, it was of precisely the form which is met with in advanced cases of retroversion of the aortic valves. One of his Medical friends had suspected during life that this derangement existed, but I had doubted it. A transverse section of the ventricles exhibited them both, much dilated, with their parietes remarkably flabby. Those of the left were rather thin than thick, but as the dilatation was great, there was doubtless an absolute increase of substance. Some degree of fatty degeneration was suspected, and microscopic examination demonstrated that this suspicion was correct. The cavities were filled with dark grumous blood. The valves were perfectly healthy, and their membranes and tendinous cords remarkably delicate. There was no appearance of endocarditis. The peritonæum was quite healthy, and the delicately thin omentum was spread loosely over the intestines down to the pubes. No appearance of intestinal derangement was observed.

I have said that I should have occasion to refer to the fact that J. G., the first patient whose case I have detailed, received marked but temporary relief from venesection. I wished to comment upon this kind of relief, which is so signally afforded in those examples of affection of the heart which occur more especially in some cases of chlorosis in which the malady is probably at first merely functional, consisting, as already stated, of a weak organ distended with dilute blood. The distressing oppression, and even pain, which constitutes the most urgent symptoms of these patients, are often strikingly relieved by taking blood from the arm; but the benefit is only temporary, and a fresh bleeding is urgently called for. In fact, the habit of periodical bleeding has been quite established; and it can scarcely be doubted that, with the cachectic condition so induced, the heart itself eventually participates. We know, however, that by timely interrupting this habit, and perseveringly adopting Medical and dietetic regulations adapted to the patient's state, health may be restored. A remarkable case of this kind occurred to myself, in a middle-aged woman who came to this country from Canada, and who had for a long time been copiously blooded every month or six weeks, and who believed it impossible to exist without it, though she had the most sallow and anæmic appearance. This habit was completely overcome, and I am not aware that she ever resumed it. Facts of this kind may, I conceive, assist us in the mitigation and prolongation of those cases in which the existence of organic lesion may render cure hopeless. The principal indications seem to be to diminish the bulk and to improve the quality of the blood by a diet at once nutritious and spare; and in which the quantity of fluid is much restricted, and to promote the capillary circulation and the freedom of all the secretions, while all the causes, moral and physical, which can disturb the circulation or oppress the respiration are carefully avoided.

There is another phenomenon, if I may be allowed the term, in some of these cases of great oppression of the breathing and circulation attributable to the state of the heart, which seems to me to be both interesting and important. I allude to the very remarkable influence, either for mitigation or aggravation, which the patients experience in different situations. While to individuals not so affected, the difference of influence may be imperceptible, to these patients it is nearly as great as between the purest country air and an almost suffocating mixture of gases. The following case will not merely illustrate this fact, but it also furnishes subject of interesting reflection as to the consequent pathological changes which may be induced by defective circulation, dependent on weakness of the muscular structure of the heart.

Examination of the body of S. F., aged 45, who died the preceding day.—She had for several years been quite an invalid, suffering from debility accompanied by dyspnœa. Both of these symptoms were subject to very remarkable variation, and were greatly influenced by situation. While in one place she was devoid of appetite, and scarcely able to move or use any exertion, change to a more bracing air would invigorate her, and enable her to walk with comparatively little difficulty, and take a sufficient meal with a decided relish. In no place did she find these effects produced in so marked a manner as at Reigate. The effects of medicine were equally remarkable. It was scarcely possible to prescribe for her with advantage. Her death was of a protracted character. The head was not opened. The body was thin, it might almost be said to be emaciated, the subcutaneous fat being nearly all absorbed. The lividity was not nearly so great as is often the case after death from bronchitis; but the lips and other parts which were livid, were of a remarkably deep colour. Very dark blood flowed freely from the distended veins about the neck. The thyroid gland was much enlarged and hard, forming a very firm bronchocele, which probably had added to the other causes of difficult breathing. The mucous membrane of the trachea and bronchi was deeply injected with an appearance of ecchymoses in small spots between the annular cartilages. On the right side there was little, if any, pleuritic adhesion, but a considerable amount of serous effusion, apparently cadaveric. The substance of the lung was generally emphy-

sematous, but without any very large dilatation. It was partially gorged with blood, forming considerable masses in a state of pulmonary apoplexy. Much smaller scattered portions were hard and nearly black, evidently the result of sanguineous effusion of older date. On the left side there were numerous old pleuritic adhesions, especially towards the upper part. There was likewise serous effusion. The upper lobe was corrugated and puckered, and a considerable portion was dense and indurated, and internally of a dark, almost black colour. There was some appearance of there having been a cavity in this part. The other portion of this lung was much in the same state as the right, as respects both the general emphysema and the engorged or apoplectic state; but the latter condition was, perhaps, rather more considerable. Both lungs were perfectly free from tubercles. The pulmonary veins were filled with very dark grumous blood. The pericardium was healthy; the heart was of very large size, and all its cavities were filled with dark grumous blood. The right cavities were more particularly dilated. At and near the apex of the appendix of the right auricle, the blood was firmly coagulated, and all but adherent. The parietes of the right ventricle were nearly as thick as those of the left, and its cavity about as large.

The edges of the tricuspid valve were much thickened and firm; those of the mitral much less so. The semilunar valves were beautifully healthy.

There was evident venous congestion in the abdomen, as well as in the thorax, but the viscera themselves were generally healthy.

The liver in particular was gorged with fluid blood; the spleen was remarkably small, though turgid and firm. There was no kidney in the left lumbar region, the kidney which should have occupied that situation being placed on the bodies of the lower lumbar vertebra about the promontory of the sacrum. It was small and much distorted in figure, having depressions from the compression of the neighbouring parts, but its substance, like that of its fellow, was healthy. The uterus was rather large; the ovaries of fair size, and their surfaces only partially corrugated.

It may be suspected that this was an ordinary case of emphysematous lung; but I would observe that this condition of the lung was not of an extreme character, while the whole train of symptoms were those of a very weak heart, which, from its size, it would not have been had it not been attended with degeneration of substance. The remarkable traces of old affection of the lung were referrible to a former attack, which, like the last, did not seem to be of an inflammatory character.

ON A NEW MECHANICAL METHOD OF TREATING OBSTRUCTIONS OF THE NASAL DUCT.

By THOMAS WESTROPP, Esq.

It has often occurred to me, that membranous obstructions of the nasal duct might be treated much more successfully if our mechanical contrivances were of a better description,—that the principles and practices which are used with such happy results in strictures of the urethra, should also be directed towards the strictures of the passages in question. Their relative differences, it is true, must be borne in mind; but whether a stricture is cured by the process of dilatation or absorption, it matters not, if we can succeed in removing one of the opprobria of Surgery; for every Ophthalmic Surgeon must know that, as a general rule, most of these cases have been treated in vain by the most eminent authorities on the eye; even the style, from the uncertainty and disagreeable consequences attendant on it, has almost fallen into disrepute.

I have long thought, that by carefully and frequently passing up from the nostril a catheter of very small calibre, we might be able to cure those cases without the disagreeable necessity of making a deforming incision at the angle of the eye, which patients much object to. I propose that a fine wire of silver or gold, or a fine bit of catgut, be passed down through the puncta, and brought out at the nostril; on this let a No. 1 catheter be passed up to the lachrymal sac, in the same way that a catheter, with its point cut off, is passed along a piece of gut previously pushed through a stricture into the bladder.

The various measures already practised for improving the general health and removing local vascularity, should be first had recourse to. In addition to the lotions in common use, I would recommend a collyrium composed of iodide and bromide of potassium dissolved in water, a few grains of each to the ounce; this may tend to produce absorption of the effused lymph, or correct the thickened state of the lining membrane. I have used such a lotion with benefit in opacities of the cornea. In addition, the power of the tensor tarsi, or Horner's muscle, might be restored from its long distension by a lotion containing strychnia, or by the endermic application of strychnia over the sac.

I have been on the point of putting this mechanical contrivance to the test in two appropriate cases, but, unfortunately, the patients ceased to attend, when they were relieved of the inflammatory symptoms. I hope some of your readers will put the idea in practice, and communicate results.

14, Westbourne-place, Clifton.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

SERIES OF CASES, ILLUSTRATING THE TREATMENT OF STRICTURE OF THE URETHRA.

The following case forms the third of a series which we commenced nearly a year ago, (see *Medical Times and Gazette* for June 2, 1855), but which circumstances then obliged us to defer. In the meantime a very large body of facts has accumulated on our hands, which we now propose as concisely as may be, to bring before the Profession.

GUY'S HOSPITAL.

Case 3.—STRICTURE OF URETHRA FOLLOWED BY ABSCESS IN PERINÆUM AND PERINEAL FISTULÆ.—OPERATION.—ACUTE PYÆMIA WITH SUPPURATION OF LEFT WRIST.—TREATMENT BY QUININE AND STIMULANTS.—RECOVERY.

(Under the care of Mr. Cock.)

John Lucas, aged 42, a sailor, of dark complexion and moderately robust build, was admitted into Guy's Hospital, under the care of Mr. Cock, on November 10, 1853. He had he said suffered from stricture for two years and a-half. He had frequently had gonorrhœa. His left testicle was wasted, a condition which he attributed to an injury he had received four years ago. Two years ago he was admitted into the Dreadnought, under the care of Mr. Busk, who treated the stricture by progressive dilatation with bougies and partially relieved him. Since that treatment, however, he had never been able to retain his water for long at a time, and had always suffered pain in voiding it.

His present attack had been coming on for three months, during which his difficulty in passing water had been increasing. He still appeared in fair health, had a good appetite, and clean tongue, but on account of the pain, etc., with the urinary apparatus, got but little rest at nights. There was a large amount of thickening of the urethra, perceptible to the finger, just anterior to the prostate, and extending forwards to the bulb. Retention of urine not complete. Mr. Cock failed in a careful and persevering attempt at catheterism. Ordered leeches to the perinæum, and a draught containing alkalis and mucilage every four hours.

November 12.—Another failure in the attempt to pass a catheter. The swelling about the perinæum rather increases, as also the irritability of the bladder. Ordered hot-bath once daily. Cupping to the loins.

18th.—There is an abscess forming in the perinæum, which is hot, swollen, and very painful.

21st.—Mr. Cock made a free incision into the abscess, and let out a large quantity of pus.

22nd.—He is feverish, without appetite, and cannot sleep.

23rd.—Passes the greater part of his urine by the urethra,

and in a larger stream than formerly; a small quantity, however, escapes by the wound. Troublesome bronchitic cough, with much expectoration.

Dec. 1.—Since last note he has much improved; the perineal swelling has subsided; a fistula, communicating with the urethra, however, still remaining. The urine passes almost equally by the urethra and the fistula. No catheter has yet been introduced, and Mr. Cock has, therefore, determined to open the urethra behind the diseased tract.

Operation.—Chloroform given. A sound having been passed into the urethra, down to the stricture, Mr. Cock cut into the perinæum, and opened the urethra just anterior to the prostate, leaving the stricture untouched. A grooved director, and then a female catheter were passed through the wound into the bladder. Ordered wine, ʒvj. daily.

December 4.—The man has suffered a good deal of constitutional irritation, but nothing of an alarming character. The catheter is withdrawn, as it appears to give pain, and withal serves no useful purpose, as the urine passes quite freely by its side, and escapes by the perineal wound.

8th.—Ever since last date there have been daily most severe rigors, followed by profuse sweatings. The man is sunken and depressed; his complexion of a pale yellowish tinge; tongue tremulous and tending to dry; pulse very rapid; breath has a sweet, faintish odour. The stomach is irritable, and there has several times been vomiting. A large abscess has formed in the left forearm, which, it is believed, communicates with the wrist-joint. Great pain preceded its formation. Mr. Cock has opened it to-day, and evacuated much ill-formed pus. The man lies helplessly on his back, and his general appearance is as characteristic of pyæmia as could well be imagined. Ordered to take brandy freely, wine, eggs, etc., as he can bear them.

12th.—Continues in much the same condition; severe pain has been complained of over the left ancle, and in several other parts of the body, but no suppuration has occurred. Rigors and sweating still recur. Mist. quin. gr. ij. ter die.

30th.—Mr. Cock passed a very small flexible catheter into the bladder, and larger ones were subsequently introdueed, until the canal was fully dilated.

January 5.—The last three weeks have witnessed great improvement. After remaining for a fortnight in a most precarious condition, he began to gain ground, and has since continued to progress well. There is still discharge from the abscess in the arm. It would appear that the pus had burrowed among the muscles of the fore-arm, since the whole of them seem glued together as the inflammation subsides. The wrist is stiff, but not anchylosed; and he has very little use of the arm. No urine now passes by the wound, which is, however, still large, and suppurates freely. A No. 5 catheter (flexible) is retained.

13th.—The catheter has been removed, and the urine now flows almost solely by the perineal wound. The wound is fast closing. He continues to improve in health, but still retains the pale yellow complexion of the disease.

18th.—He now passes the catheter for himself when necessary.

At the time of discharge from the Hospital the wound was not quite healed; but it subsequently closed, and the man regained good health.

Remarks.—We have here an example of recovery from a state of most marked pyæmia. The treatment under which so unusual and almost unhoped for an event ensued, was that of free stimulation. Although very rare, the case is by no means a solitary one in the respect alluded to. We are acquainted with the particulars of about ten cases, which have occurred in the different London Hospitals during the last few years, in which acute and well-marked states of pyæmia after operations have been recovered from. Intending at some future time to devote a special report to this subject, we will not further dwell upon the instance above adduced. In regard to the treatment of stricture, the case shows the advantage gained by the practice of opening the urethra behind the diseased tract, when the tract itself is impassable. During the first few weeks following such an operation, it is often observed, as was here the case, that a stricture previously quite rigid and almost impermeable, relaxes remarkably, and in due time permits of successful dilatation by instruments.

Jonathan Hutchinson.

(This Series to be continued.)

ST. BARTHOLOMEW'S HOSPITAL.

LACERATED WOUND OF SCALP—SUPPURATION BENEATH DURA MATER—TREPHINING—DEATH—AUTOPSY.

(Under the care of Mr. SKEY.)

The following case has a point of great interest for the practical Surgeon, and excited much attention in the Hospital where it was treated. A healthy lad sustains a severe scalp-wound without fracture. He has, at first, no head-symptoms whatever; the wound, however, takes on an unhealthy action, and there is, during the first ten days, a good deal of constitutional depression. On the tenth day, the wound being now healthy, there occurs for the first time a symptom of very threatening character—that is, repeated vomiting. During the eleventh day, the vomiting continues; and on the morning of the twelfth, the suspicions aroused as to something wrong within the skull are fully confirmed by the occurrence of complete paralysis of motion on the right side. He is still rational; and, as the injury was on the left side of the head, the inference is one respecting which there can be little hesitation, that a local effusion of pus beneath the part struck is causing compression of the left cerebral hemisphere. Nor is there more of doubt as to the surgical measure to be adopted. The trephine is now employed, but, to the great disappointment of the Surgeon, the diagnosis at first appears to have been erroneous. Not only is there no collection of pus between the dura mater and the injured part of the parietes of the skull, but the membrane itself adheres to the bone firmly, and appears quite healthy. The operation, although so clearly indicated, has gained nothing. The oozing up of a drop or two of fluid, which might or might not be pus, has rather puzzled than assisted, since its quantity is altogether inadequate to the production of the symptoms. The symptoms persisting, the next suggestion is that the locality of the sub-cranial abscess has been mistaken, and a careful examination of the neighbouring regions of the skull is made. No signs sufficient to warrant a second trephining are, however, discovered. On the fourteenth day the paralysis was greater than ever, and the boy very fast sinking. Considering it now as certain that despite its apparently healthy state there must be matter beneath the dura mater. Mr. Skey determined to puncture that membrane. A small exploring puncture revealed nothing, but a more free incision let out a free gush of pus, and at once cleared away the obscurity which had attended the case. The subsequent progress and the autopsy were in unison with what was premised from this discovery. The case proved one in which, after injury, pus had been effused beneath the dura mater instead of as, in those described by Pott, and of far more usual occurrence, between that membrane and the injured bone.

Frederic Beddle, aged 15, a healthy boy, was admitted into Harley Ward, under the care of Mr. Skey, on January 7, 1856. The following are the particulars of his case, as recorded by Mr. Hodgson, Mr. Skey's House Surgeon.

Jan. 7, 11 p.m.—This boy was crossing a street, when he was knocked down by the wheel of a cab, which struck him on the left side of the head; he was brought to the Hospital at once. A piece of integument is torn, extending from just above the left eyebrow upwards and backwards nearly to the vertex; the edges of the wound are jagged. The flap of integument turns down over the cheek. The temporal fascia is torn and separated from the muscle; a large piece of pericranium is separated from the bone; part of the coronal suture is exposed, and one of the teeth of the suture projects slightly; every part of the wound was thoroughly coated with mud. There was slight hæmorrhage. After being washed, the edges of the wound were brought together by two pieces of strapping; they were still about an inch and a-half apart, the bone and temporal muscle remaining exposed.

The boy's manner is perfectly natural, answers questions rationally, etc. He does not complain of much pain. The irides contract naturally.

8th.—Has passed a tolerably comfortable night; he is now quite easy and free from pain. Wound not disturbed.

9th.—The wound has begun to discharge; pus healthy; some sloughing action going on—offensive odour. Strapping was removed, and a bread poultice applied. The left eyelid

is red and swollen. He slept moderately well. Has very little pain. Pupils act well. Tongue slightly furred; papillæ elevated. Pulse 112, sharp, easily compressed. Beef tea, oij., eggs ij., quinæ disulph, gr. iij., 4tis horis.

10th, 2 p.m.—He has had three doses of quinine. He feels much better, and attributes it to the medicine. The erysipelas about the left eye has disappeared; he is more cheerful; tongue is clean; pulse 108, better volume. A portion of pericranium and also some temp. fascia came away; large quantity of healthy pus beneath the loose flap of integument.

11th.—General appearance much the same. A small incision was made just over the zygoma to allow of the free escape of matter which collects beneath the integument. Pulse 104; bowels open. Wine ʒiv. Quinæ disulph. gr. iij., ter die.

12th.—Continues much the same; complains of feeling weak. Pulse 100. Wine ʒvi.

13th.—He is better to-day than he has been since the occurrence of the accident. All sloughing has ceased; wound has a perfectly healthy appearance. Tongue is clean. Pulse 88, good volume.

14th.—Is not so well. Left eyelid swollen. Tongue furred. Pulse 116. Says he feels very low.

15th.—Somewhat better. Pulse 108. Bowels have acted.

17th.—Improving the last two days. Wound appears healthy. Abundant discharge of pus. Tongue clean. Pulse 100. Has been sick several times to-day. Porter Oj., wine ʒvj.

18th.—The sickness continues. Stomach has rejected everything except the porter. Much the same in other respects. Pulse 100, rather feeble. Porter Oj., brandy ʒvj.

19th.—Saw him early this morning. He had a slight rigor in the night. Has been rather restless; no pain. Had an action of the bowels. Is now quite unable to move his right arm or leg; sensation perfect in both. He is quite rational; answers questions properly but slowly, there being a slight impediment in his speech. The vomiting continues, but does not occur so often. He is much weaker than he was yesterday. Pulse 120, irregular, very easily compressed.

9 a.m.—Brandy ʒiss., tr. cinchonæ ʒij., ammon. sesquicarb. gr. vij. statim.

11 a.m.—Brandy ʒiss.

1 p.m.—Pt. hst.

2½ p.m.—Mr. Skey saw him. A consultation was held. All the Surgeons agreed that there might be, and most probably was, matter situated between the bone and dura mater. Trephine applied, and a piece of bone, about the size of a sixpence, was removed; the dura mater appeared quite healthy. In a few minutes a few drops of pus oozed up between the dura mater and bone. The matter was examined by the microscope, and the pus globules satisfactorily demonstrated. A probe, used very lightly, would not pass between the bone and dura mater in any direction.

4 p.m.—Pus in small quantity continues to ooze from the opening. The operation has not produced any effect. He has no pain. Left side remains powerless. Has had a voluntary action of the bowels. Pulse 140. Brandy ʒx. Cat. lini.

20th.—Very restless all night; is quite sensible. He has very little pain in his head. At half-past 7, a.m., the wound began to bleed; the hæmorrhage seemed to proceed from beneath the temporal fascia; a director was put in at the upper edge of the loose integument, and brought out at the small wound made on the 11th, near the zygoma. When the integument was divided, a moderate quantity of coagulated blood was found; on its removal, the vessels below continued to bleed pretty freely for some time, as they could not be secured. The wound was left exposed to the air, and hæmorrhage gradually ceased. There was a small vessel near the upper part of the temporal muscle, which was rather troublesome, but the bleeding from it was soon stopped by a compress of lint.

2 p.m.—Mr. Skey saw him. He tried to separate the dura mater from the bone with a probe; very slight pressure caused the vessels of the membrane to bleed.

21, 5½ a.m.—Had a rigor which lasted half-an-hour. He was slightly convulsed, and seemed at one time to be sinking fast. He gradually rallied. At 9 a.m. a small incision was made about two inches behind the ear. The scalp was puffy and swollen; there was no pus beneath; a probe passed from the wound to the ear; the bone was not exposed. From the increase of the paralysis, and from the general condition of the boy, Mr. Skey thought there must be some pus beneath the dura mater. He punctured it carefully, and let out at once two or three drachms of pus. The wound was afterwards enlarged, and more matter escaped. Æther. chlor. et sulph. āā ʒss., 2ndis.

22. Since the dura mater was opened yesterday, pus has continued to flow freely. The general symptoms did not at all improve. He died at half-past four a.m.

Post-Mortem.—There was no fracture. No pus between dura mater and bone. There was a great quantity of matter diffused over the left cerebral hemisphere; it was in the sub-arachnoid space; brain otherwise healthy.

THE LONDON HOSPITAL.

PNEUMONIA—FETID EXPECTORATION—DEATH—AUTOPSY—CIRCUMSCRIBED ABSCESSES IN THE LUNG.

(Under the care of Dr. GIBBON.)

The following case illustrates the occurrence of that very unusual condition, circumscribed abscesses in the lung.

James Goble, aged 35, admitted into the London Hospital under the care of Dr. Septimus Gibbon, April 25, 1856. Employed as a butler, and always enjoyed good health until five weeks ago, when he first noticed a cough. On April 19, he suddenly became worse, with tightness at the chest, cough, and offensive expectoration. He was not confined to his bed until the day before admission; has had no pain anywhere. Three months ago he had swelling of the legs.

26th.—Lies on his back, with his shoulders raised; breathing 40 times a minute; countenance dusky; lips livid; skin bathed in perspiration; pulse 120, compressible; tongue nearly clean, moist, and tremulous; cough very troublesome; expectorates abundant purulent matter, which has a very offensive odour; says he can recline on either side, but usually lies on his back.

Auscultation.—Throughout the right lung are heard bronchial breathing, mixed here and there with large crepitation and bronchophony. About two inches in a direct line below the right armpit, over a space the size of the palm of one's hand, is heard cavernous breathing, pectoriloquy, gurgling, and metallic tinkling on cough. Percussion dull over entire surface of this lung. Throughout left lung breathing is puerile, but otherwise free from abnormal sounds.

Ordered—Emplast. lyttæ amplum lateri dextro. Mist. salinæ e. tinct. camph. co. ʒss., c. tinct. hyoscyam. ♏xv. Wine ʒvj. Middle diet.

27th.—Blister drew well; dyspnœa continues as urgent as yesterday; respirations 70 per minute; skin bathed in sweat; pulse 126, soft; tongue moist, with a thin creamy fur; bowels opened once, never been relaxed; cough easier; expectoration very abundant and offensive. Auscultation remains the same.

29th.—Last evening the patient suddenly became much worse. The Resident Medical Officer saw him, and suspended the saline mixture; but the dyspnœa was such as to be incompatible with life, and he sank, without fit or coma, at nine o'clock p.m.

Post-mortem examination, thirty-eight hours after death.—Face much congested, of a purplish-red colour; lips of a dark blue colour; rigidity well marked; body well nourished, having an unusually large quantity of subcutaneous fat.

The pleural surfaces of both lungs were pretty firmly adherent to the parietes of the chest. On removal, the right lung appeared, as seen here and there through the layer of false membrane, to be of a deep purplish-red colour. It had a very firm, solid feel; but the anterior and lower edges were more flexible and tough than the other parts, but were totally devoid of crepitation. Section through the posterior part showed three cystic cavities, each as large as a full-sized marble, each about equidistant from the apex and base of the lung, and about one or two inches from the surface of the lung. There were also many smaller cavities, the size of a pea, scattered through the middle and lower lobes. They all contained similar-looking contents; viz., flocculent buff-coloured purulent matter, giving one the idea that it was the *débris* of lung-tissue mixed with pus. This was confirmed by the microscope. The tissue around these cavities was of a greenish hue, and had a smooth, minutely granular appear-

ance. The upper lobe was of a deep red colour. The white cellular divisions of the lobules were well marked, and gave the parenchyma a marbled appearance. A considerable quantity of venous blood, mixed with large air-bubbles, exuded from the cut surfaces.

The left lung was as large and rounded in appearance as the right. It pitted on pressure, and did not crepitate very freely in its lower lobe, which section showed to be in the first stage of pneumonia. There were a few small abscesses in it, similar to those found in the right. The upper lobe was healthy, except being œdematous. The heart's cavities were distended with venous blood; not contracted, but free from disease. On the cardiac surface, near the base, were very many small fibrinous vegetations firmly united, and one hæmorrhagic spot, which, it should have been stated, were very numerous on the surface of the left lung.

The other organs, except the brain, were examined, and found healthy.

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Medical Times & Gazette.

SATURDAY, JUNE 7.

MEDICAL REFORM.

Although the mention of Medical Reform may excite in many minds only a sensation of weariness, yet we believe, that never in the history of our Profession was an amendment of its laws more imperatively required than at the present time, and never would remedial measures be received with greater thankfulness and unanimity. The evils under which we groan call aloud for redress; and during the present period of uncertainty which intervenes between the statement of grievances and their attempted rectification, a chaotic confusion prevails among the members of the Profession itself, and among those who are aspiring to enter into its ranks. Legal and illegal Practitioners—the well-qualified, the half-qualified, and the unqualified—all press against one another in the race of life; and, where all is uncertain, the arm of the law is feeble to protect the educated or the half-educated aspirant, or to punish the pretender. In the Medical Schools the same uncertainty paralyzes the efforts of the industrious Student, and damps the energy of his teachers; the learned and the ignorant have the same chance of reaching the goal of success in practice, or rather the advantage is on the side of the latter. Those who obey the existing laws are in a worse position than those who systematically break them; and they who have toiled and spent their funds in mounting step by step the laborious ladder of Professional qualification, find, when they hope they have arrived near the top, that they are displaced by quacks and pretenders who have never mounted the ladder at all, and who have been admitted into the citadel of public confidence by their ingenuity in imposing on the credulity of the multitude.

Remedies innumerable have been suggested from time to time for the anomalies of the Medical Profession; but all curative measures have hitherto proved to be unsuccessful. Sometimes the leaders of the movement have been persons of little reputation, anxious only to gain a transient notoriety; sometimes large masses have assembled together, and have subsequently crumbled to pieces for want of leaders; sometimes merely selfish motives have lain at the bottom of pretended efforts for the public good.

Never did a better opportunity than the present offer itself for the solution of the much vexed question; for the Profession—wearied by its own repeated but unsuccessful efforts, disgusted by the selfishness and the shallowness of its demagogues, disheartened by the want of energy on the part of its Colleges and Corporations, is now willing and even eager to accept at the hands of the Legislature any measures which may be framed with a view to consolidate and to harmonize existing interests, and to secure a more uniform system for the future. Finding it vain to hope for succour or protection at the hands of its municipal authorities, the Profession throws itself upon the consideration of the Government, willing even to abandon the principle of representation, if it can secure some portion of the attention of the Legislature, and make its voice to be heard in the Councils of the nation. If the present Session should be allowed to slip away without some measure of Medical Reform, we may almost despair of any attempt being renewed in the same direction; and the Government, if it is frustrated in carrying its measures, may justly abandon the ungrateful task of reconciling conflicting elements, and may resolve the whole question into its primitive confusion.

But while we urge the Profession to lend its aid to the Government in carrying out provisions which we believe to be founded upon a just appreciation of our claims, we must, on the other hand, impress upon the Government the propriety of listening to the voice of those who are the most respectable and influential members of our body, and to disregard as far as possible the clamours of the quacks, and of persons like Dr. Michell, who are entirely repudiated as exponents of our sentiments. Nor would we omit to warn the Government not to attach too much weight to the sentiments of the different Medical Corporations; for, however much gratitude these bodies may deserve for many past services, there is not one which is not in need of internal amendment, and perhaps there is hardly one which will not resist any scheme which appears unfavourable to its own interests.

The Medical Press, which is too often distracted by conflicting sentiments, has displayed a remarkable unanimity upon the plan of Medical Reform now about to be submitted to Parliament; and it may perhaps be said, without presumption, that the Medical Press represents pretty generally the wishes of the Profession. The great objects embraced in the forthcoming measure are of paramount interest and importance, and the Minister who carries them out successfully will overcome some of the strongest impediments to the progress of Medical Reform.

THE POISONING OF JOHN PARSONS COOK.

Much of the mystery which lately hung over the death of Mr. Cook at Rugeley has been removed, and many of the links in the chain of facts, which were formerly wanting, have now been supplied. One great difficulty in the case was to explain the possession of strychnia by the prisoner Palmer on the night of Monday, November 19, when, it will be remembered, Cook was seized with his first attack of tetanoid con-

vulsions. It now appears that Palmer procured the strychnia on the Monday night from a person named Newton, who, curiously enough, revealed the fact only on the 13th of May, the day preceding the trial. It is, indeed, currently reported, that Newton actually made up the strychnia into the form of pills, being, of course, ignorant of the felonious purpose to which they were to be applied, although a conversation had taken place on the night before on the subject of poisoning dogs by strychnia, and upon the power of detecting that poison after death. We also understand that the same Newton was the chief agent in making the post-mortem examination of the body of Cook, and was unlucky enough to let the contents of the stomach escape, by which act of inadvertence so much serious impediment has resulted to the course of justice. It seems, moreover, that Palmer had plied the operators at the post-mortem examination with brandy before commencing the proceedings, and it is not impossible that the liquor may have been drugged. Under any circumstances, we cannot help expressing our amazement that, in a solemn investigation of a case of suspected poisoning, the post-mortem examination was so unskilfully performed that the operators sent away the stomach *turned inside out, and lost its contents!*

The opinion that the deceased died from strychnia poisoning was formed, we believe, by Dr. Taylor and Dr. Rees entirely from a consideration of the symptoms detailed by the waitress Mills, and Mr. Jones the surgeon; for, although it was known that Palmer purchased strychnia on the *Tuesday*, the evidence that he obtained it also on the *Monday* was procured only on the eve of the trial. But, on the evidence afforded by the symptoms, and in the absence of any further proof, Dr. Taylor affirmed that the symptoms on the *Monday* night were due to strychnia,—an opinion which has been fully borne out by Newton's tardy revelation.

We still wait for some further information upon the chemico-physiological facts and theories involved in this very extraordinary case. We have already hinted our astonishment, not to say incredulity, at some of the doctrines broached at the late trial; but we shall, nevertheless, be most happy to modify any of our opinions as science advances and experiments are multiplied.

We think that Mr. Herapath and Dr. Letheby would confer a great service upon Medical science, if they would inform us of the nature of the processes they have used for separating strychnia, and of the tests for demonstrating its presence in the blood, liver, and tissues. They might state how much they administered to any given animal, how much was found in the stomach after death, and how much extracted from the tissues. Orfila and Christison give no processes, and appear to know of none; and it would really be most interesting to Toxicologists of the present day, if such serious omissions on the part of these eminent authorities could be supplied by more modern investigation.

The practical question is of serious importance, not only to science but to humanity, whether the failure to detect a vegetable poison after death is to be always taken as a proof that none has been administered. One-twelfth of a grain of strychnia has been known to be almost fatal to a human being, and death might ensue from the injection of a very small quantity into the rectum, or by its insertion into a wound or ulcer. Under these circumstances, we doubt whether even Mr. Herapath, Dr. Letheby, or Mr. Nunneley, could always bring visible evidence of the existence of the poison, although, from other circumstances, it might be proved that death resulted from the employment of strychnia.

We feel confident that the distinguished living toxicologists whom we have named will not delay to place before the scientific world the nature of processes which are new to the existing race of Chemists and Physiologists, and which promise, if they should be established by concurrent testimony, to modify very seriously our present views of the action of organic poisons on living tissues.

THE WEEK.

It will be recollected that we drew attention, some weeks since, to an effort made by a Committee of the Epidemiological Society to induce the Poor-law Board to issue an order or recommendation that the female paupers of the different Unions should be trained as nurses to attend the sick. We are happy to learn that the efforts of the Committee have been so far successful that the Poor-law Board has issued a circular letter to its Inspectors, recommending them to enjoin upon the Local Boards of Guardians the propriety of establishing a system of instructing the female paupers in the duties of nursing. We have already expressed our own opinion of the propriety of this step, by which persons who would be otherwise useless may become valuable members of society, and, instead of being burdens upon the funds of the country, become capable of earning an honest living. We hope that the Local Boards will aid this movement, and cheerfully adopt the recommendations of the Poor-law Board.

The Biennial Festival of the Medical Benevolent Fund was celebrated on Wednesday last at the London Tavern, the Right Honourable Henry Labouchere in the Chair. Although the attendance was not so numerous as might have been desired, there was a very fair gathering of many of the old friends and supporters of this excellent charity, together with some new blood infused from the younger members of the Profession. Mr. Toynbee, the Honorary Secretary, read a very satisfactory list of donations, including liberal contributions from Sir James Clark, Sir John Forbes, Dr. Bence Jones, Dr. Tweedie, Mr. Newnham, the Right Honourable Mr. Labouchere, Mr. Angerstein, and many others. The advantages conferred by this Fund cannot be too extensively known among the Profession; it offers its benefits to all Medical men, their Widows, and Orphans, as far as the resources will allow, but the names of the recipients of the bounty are not divulged. Hence there is an absence of that *éclat* which is obtained by the erection of public edifices and the contested elections of pensioners; but those who wish to do good in secret will do well to enrol their names among the contributors to the Medical Benevolent Fund.

Since the conviction of Palmer for the murder of Mr. Cook, various letters have appeared in the newspapers, raising the new question as to the possibility of the discovery of strychnia in the blood and tissues after death. Smith, Palmer's Solicitor, has actually demanded, that the execution of the culprit shall be delayed until a Government Commission has been appointed to investigate the chemical and physiological history of strychnia; entirely forgetting that the conviction does not depend so much upon the Chemical evidence as upon the unexplained possession of strychnia by the prisoner, and the correlative symptoms in the case of the sufferer. If it can be shown even now, that the strychnia was procured for any lawful purpose, no doubt the prisoner should have the benefit of the explanation; but it seems to us, that in the absence of any motive for the possession of the poison, the prisoner procured it for the purpose of murder. One of the young gentlemen engaged in the post-mortem examination has written a letter to the *Times*, throwing the blame of cutting open the stomach and spilling the contents upon his fellow-operator; but whoever may be the party to be censured, it is very evident that the autopsy was performed in a most slovenly manner.

We have received letters from Renkioi to the 18th of May. Nearly all the patients then in Hospital were about to return to England, with about half of the Medical Staff. Dr. Parkes, Dr. Goodeve, Dr. Robertson, and Mr. Spencer Wells, remain, with eight junior officers; as the War Department have determined that, although all works are stopped, the establishment is to be kept up on the smaller scale as a provision in case of an unusual amount of sickness occurring among our troops before they can leave the seat of the late operations. This appears to be a very prudent proceeding on the part of the Government, and its utility will probably soon become evident, as we regret to hear that typhus has appeared in several of the transports, and at Balaklava, though as yet to no very great extent.

The conduct of Mr. Ward, the Coroner for Staffordshire, in his management of the inquest upon the late Mr. Cook, has called down upon him not only the reproof of the Lord Chief Justice, who is the chief Coroner for England, but also the unanimous condemnation of his brother Coroners. These gentlemen have lately held a meeting in London, when a resolution was passed, pronouncing Mr. Ward's conduct as discreditable, and likely to lower the office of Coroner in public opinion. Our own opinion of Mr. Ward is quite in accordance with that of his brethren.

Intelligence has lately reached England, of the death of Dr. John C. Warren, of Boston, U.S., one of the most eminent of Transatlantic Physicians and Surgeons. He died at a good old age, and was attended in his last illness by his old friend and brother practitioner, Dr. James Jackson, whose last work, entitled "Letters to a Young Physician," is dedicated to Dr. Warren in terms which reflect the highest honour on both these distinguished physicians.

The Inaugural Dinner of the Royal Hospital for the Permanent Care of Incurable Cases, took place on Thursday last at the London Tavern, Charles Dickens, Esq., in the Chair. The Hospital at present is at Carshalton, and its object is sufficiently indicated in its title. We are happy to learn that not only are the benefits of such an Establishment strongly urged by some of the most distinguished members of our Profession, but its claims have met with great support from the benevolent portion of the public. Dr. Andrew Reed, whose efforts in many other charitable institutions are well known, is the Provisional Secretary.

We alluded, in our Journal of February 9, to the fact that a large number of lunatics were allowed to be abroad in this country, without any control being exercised over them; and we then suggested that it was rather the duty of the State to protect society from the dangerous consequences which *might* ensue, than to avenge itself on the mad perpetrators of crime *after* it had been committed. The whole country is now pretty familiar with a case in which a most estimable lady, whose praise is sounded through all the country for her deeds of munificence and for her private virtues, has been for a series of years the victim of a most unrelenting persecution on the part of a monomaniac barrister. Two of our police-courts have been the scenes of a display of this gentleman's insanity during the week; in one case the applicant demanded a summons against the lady for having persecuted him in every conceivable manner; for getting him turned out of eleven lodgings; and for causing him to be pursued by a lunatic fresh from a lunatic asylum armed with a loaded bludgeon; and the magistrate having refused to grant the summons, is threatened, by the applicant, with a criminal information. Now, in all reason we ask, why should the authorities wait until this individual has actually threatened bodily mischief on his victim, before they protect her and society from what is possible, if not probable? With the greatest respect for the free laws of our happy country, and for the individual freedom which we enjoy, we feel it our duty to place this warning on record. Who is there that has heard of the name and the deeds of the lady in question, that would not deeply regret the licence (if we may so term it) that has been for years allowed to the individual in question, and which may, in the absence of legal interference, terminate some day in the public being horror-struck with a recital of some cool-blooded assassination? It may be said, "Oh, but this is not probable; he knows better," and so forth. We ask, how many wretched homes have now to mourn for having been lulled into security by such false comfort?

REVIEWS.

Physicians and Physic; Three Addresses:—1. *On the Duties of Young Physicians;* II. *On the Prospects of Young Physicians;* III. *On the Modern Advancement of Physic.* By James Y. Simpson, M.D., F.R.S.E., etc. etc. Edinburgh. 1856.

These pages contain three addresses: one delivered to the Medical Section of the University of Edinburgh in 1842, at the public meeting of the Senatus Academicus; the second delivered on the same occasion in 1855; and the third, a Presidential Address to the Edinburgh Medico-Chirurgical Society, in 1853. We commend them most heartily, not to our younger readers only, but to all who love our Profession and would uphold its dignity, and who desire a summary of the progress it has made in usefulness within the present generation. We cannot say that Dr. Simpson has quite escaped the prevalent faults of such compositions, namely, a little inflation of language, a little exaggeration, and what is peculiarly national, a little tendency to over-familiar and misplaced quotations from the Scripture. Medicine has claims enough on the respect and gratitude of mankind, and does not need to be exalted at the expense of other Professions. "If," says Dr. Simpson, "you wish for a coronet and a pension, enter the law;" "distinguish yourself above your fellows, so as to 'make the worse appear the better reason,'" etc. "But above all," continues Dr. Simpson, "perhaps the easiest and surest path at this moment to a corner in the peerage-book, is, for a man to destroy diligently and successfully, as a soldier, as many as possible of his fellow-men." Whether the Medical Graduates of Edinburgh are likely to be improved by being taught to despise those great mental endowments by which alone men have risen to be successful generals or lawyers, we will not venture to say. But we do very fervently lament the unhappy fact, that whenever Law and Medicine come into collision, Medicine always contrives to get the worst of it. We need not refer to a late trial for proof of this. When members of our Profession have acquired the art of delivering an opinion, or of detailing the results of their experience, in such a way as not to subject themselves to the most trying difficulties, they may begin to sneer at special pleaders, and, as for military commanders, to say that theirs are the qualifications of a Thug, is too childish to bear serious examination. The difference in the honours attained, arises from differences in the objects and constitution of the several Professions. Guthrie, we firmly believe, was a man of transcendent vigour and ability, and would have made a most successful general. More public honour ought to have fallen to his lot, for his services in his Profession; but that Profession is, by its very nature, too much devoted to individual cases to command the honours that await those only who control and govern men in large masses.

Lectures on the Diseases of Women. By Charles West, M.D. Part I. Diseases of the Uterus. London. 1856.

If Dr. West's lectures are not characterized by the brilliancy and inventiveness which are so eminently shown in the works of a great Northern accoucheur, we may say, that they exhibit considerable laboriousness, and a very creditable and

praiseworthy desire to impress the student with the soundest and most sober view of various diseases, for which conflicting and extravagant modes of treatment have been proposed of late years.

We may give, as a specimen, his observations on what is called *mechanical* dysmenorrhœa :—

"With reference to the last form of dysmenorrhœa, namely, that dependent on the narrowness of the os and cervix uteri, and the consequent mechanical impediment to the escape of the menstrual fluid, I have already expressed my conviction of its rare occurrence. In some instances, in which this was supposed to be the cause of painful menstruation, the result of careful examination has been to show that the cervix was small, and its canal narrow, just because the sexual organs generally were undeveloped. Such cases, I need not say, are not cases of mechanical dysmenorrhœa, nor to be relieved by any attempt at dilating the cervix ; neither, indeed, is the proceeding to be resorted to on speculation, if I may say so, and with no better warrant than the fact that the dysmenorrhœa is habitual, or of long standing, and that other means have not been successful in effecting its cure.

"To judge, indeed, of the multiplicity of contrivances which of late years have been employed for the purpose of dilating the cervix uteri, you would be led to a different conclusion from that which I believe to be the right one ; and would suppose that the existence of a narrow cervix uteri was of great frequency. In addition to ordinary bougies, such as were employed by Dr. Mackintosh, and to bougies of flexible metal, which have been found, in some respects, more convenient, metallic stems with bulbous points have been introduced, and left in the cervical canal for an hour or two at a time ; and these stems have been recently modified by constructing them of two different metals, with the view of obtaining some kind of galvanic action in the interior of the uterus. . . . . I apprehend, however, that as in the case of the galvanic rings which some time ago were sold about the streets for the cure of neuralgic affections, so in the case of the stems, the amount of galvanic action set up must be too slight to exert any real influence ; while, independent of the difficulty which there always is, especially if the vagina be narrow, in their introduction, the effect of allowing metallic bougies to remain for any considerable amount of time in contact with the interior of the uterus has almost always appeared to me that of producing very considerable suffering."

"Besides the gradual dilatation of the os and cervix uteri by bougies, instruments not unlike the *speculum matricis* of the ancients have been devised for forcibly widening it, literally screwing it open, and others for incising it by means of a bistoire cachée. I am perfectly at a loss as to the principle upon which these instruments are recommended. If the cervix uteri be wide enough to admit them, I do not see how its narrowness can offer a mechanical impediment to the escape of the menses."

In only one case, Dr. West tells us, has he ever found a constricted cervix uteri the source of suffering, and that case followed a severe confinement ; the cervix uteri would not admit the smallest bougie ; and Stafford's lanceted stilette was employed.

We apprehend that Dr. West goes out of his way, when he asserts that he is at a loss for the principle upon which any given thing does good. That is a legitimate object of inquiry, it is true : but here the thing to be asked is, does the remedy do good or not? and we very much desire to know the subsequent history of some young women, who have been dismissed from certain Institutions, cured of painful menstruation, by mechanical treatment.

We must take leave of Dr. West's very useful work, with our commendation of the clearness of its style, and the industry and the sobriety of judgment of which it gives evidence.

Ismeer ; or, Smyrna and its British Hospital in 1855. By A Lady. Pp. 350. London. 1856.

The work before us, from the pen of a lady attached to the late British Hospital at Smyrna, can hardly fail to attract notice. In it we have the daily occupation of the "Lady Nurse" portrayed ; and we are made acquainted with her joys and sorrows, with the various incidents of every-day Hospital life. This is not the place, however, to discuss the merits or demerits of a system so new that it can hardly be yet said to be tested by experience.

Our authoress is evidently an enthusiast, and for wholesome enthusiasm we have a great respect. Out of it proceeds the strength of will and energy in overcoming difficulties and grappling with details, as well as the patience, energy, and endurance in the hour of trial which are the attributes of the perfect nurse. They are only to be acquired by the force of habit and long training, unless through the inspiration of the noble quality alluded to.

At the opening of the Smyrna Hospital, and for a considerable time afterwards, its wards were crowded with cases of typhoid fever of the worst description, tedious but dangerous both to patients and attendants. Many of the latter succumbed to it, and the qualities of all were severely tested ; and nobly did the lady-nurses, at that time under the superintendence of Mrs. Coote, acquit themselves. To us by far the most interesting is the professional portion of the work of our authoress, if she will pardon us for so naming it. Details of her mission ever so minutely described by which our sympathies are engaged are of necessity effective ; who, for example, can read carelessly the following passage describing the mental conflict between hope and fear in reference to a patient she was attending ?—

"Next day, at an early hour, I stood at the door of the ward. How my heart beat ! I had seen no one who could tell me whether he was alive or dead. At last I summoned courage, and went in, when I saw two orderlies standing by the bed, and D—— stretched on it, but whether alive or dead I could not tell, though he looked more like the latter. There I stood at the door, literally unable to move until the orderly who had been up all night turned round and saw me : a smile broke over his face, as he exclaimed "All right, ma'am ; Jem's alive!" I am very sorry I have forgotten this orderly's name ; he was an Irishman and a soldier, one whose gentleness and attention equalled, indeed almost surpassed, any woman's I ever saw."

The following, too, in reference to a corroborative opinion expressed by Sir John Forbes, the superintendent first appointed, indicates sound judgment, and one upon which experience is not lost. "And I believe we were of use. Not in the way many people had a vague idea of at first, *i. e.*, that we were constantly going about with a pocketful of lint and plaister, and a case of surgical instruments, perpetually dressing wounds, (and I confess that I had a faint vision of this kind myself, before I went to Smyrna,) but in seeing the doctor's orders carried out with discretion, in the spirit as well as the letter—that nothing was done out of time, overdone or neglected—in keeping a systematic regularity—and, above all, in exercising a marvellous moral influence over the soldiers. That nurses, people from their own class, should be sent out to attend them, seemed natural enough ; but that 'ladies—real ladies,' as they used to say, should 'really' come to see that they were taken good care of, filled them with surprise."

That moral influence was the great point gained we entirely admit. We believe that many a British soldier has enduringly benefited from that influence. We have reason to know that its effects upon the most reckless men, whose vicious propensities seemed to be excited rather than quelled by suffering, were, as stated, marvellous. When we consider the aid thus afforded in maintaining order among men accustomed to the iron rule of military discipline, it must be admitted that the lady nurses played a useful part in the Civil Hospital system applied to soldiers.

A good deal of the book is taken up with details of the writer's residence at Smyrna. She seems to possess a warm appreciation of beautiful scenery, and her observations on all that she saw or heard are amusing, as well as occasionally instructive. As might be expected, the capture and detention by brigands of Dr. McGraith, a Practitioner of Smyrna, is discussed rather fully. He was mistaken for one of the Hospital Staff, and, under that impression, an enormous ransom was at first demanded. By the way, that the priceless estimation of our fair authoress by a good prelate of her native Scotland should be elicited, is due to the aforesaid brigands, a document addressed to all European Consuls engaging to repay *any* ransom necessary to recover Miss —— out of the hands of the robbers, having been placed by the bishop in her own hands. Upon this she rather naïvely observes : "If the robbers had heard what a valuable individual I had suddenly become, I might not have been here to tell the tale."

On the whole, we can strongly recommend the book to our readers. It is written throughout in an animated style. Of the portions of it relating to the Hospital we have already expressed ourselves favourably, and throughout the work, where it admits of it, there runs a vein of quiet humour which makes it easy and agreeable reading.

Trees and their Nature; or the Bud and its Attributes; in a Series of Letters to His Sons. By Alexander Harvey, A.M., M.D. Illustrated with Engravings. London. Nisbet. 1856.

Most of us remember that grand passage in the Sixth Book of the Iliad:—

> "Like leaves on trees the race of man is found,
> Now green in youth, now withering on the ground;
> Another race the following spring supplies;
> They fall successive, and successive rise:
> So generations in their course decay,
> So flourish these, when those are passed away."

The popular theory regards trees as individuals, capable of almost indefinite extension in bulk, and duration in time. But Dr. Harvey insists forcibly on the doctrine that the *tree, in toto*, is a dead residuum; it is comparable to a nation, or to a corporation, which, in one sense, never dies; but, in reality, the members of it are dying daily; and the existence of the whole is kept up by the successive addition of new elements. The new elements of trees, the buds and leaves, which are year by year developed, are looked upon by Dr. Harvey, as by Homer, as the only true living parts; while the trunk is regarded as a dead accumulation of roots. We believe Dr. Harvey to be correct, and commend his book to all students of Natural History.

A Catechism of Chemical Philosophy: being a Familiar Exposition of the Principles of Chemistry and Physics, and their Application to the Arts and Comforts of Life. By John Horsley. Small 8vo. Pp. 247. London. 1856.

Having looked through this little work, we can attest its fitness for the purposes it is intended to answer, viz., "*to excite* and *encourage*, if possible, a taste and desire for the study of those sciences which minister so much to the comfort and well-being of society, by *progressively* presenting each subject in as *simple* and interesting, yet *complete* and *concise* a form as possible." (*Preface.*) The matter is given in the form of question and answer, the answer "in every case professing to be a *practical digest, the pith and marrow, of the scientific facts.*"

Although especially dedicated to "the heads of schools, private families, and others interested in the education of junior classes," it will not be found too trifling for the junior Medical student. The work is well arranged, clearly written, and being profusely illustrated with woodcuts, cannot fail to be intelligible to any ordinary mind.

On the Medical Selection of Lives for Assurance. By William Brinton, M.D. Pp. 58. London. 1856.

In this pamphlet, which forms the subject of a Lecture to his class, Dr. Brinton gives some very valuable information upon the subject of Life Assurance, and shows that, notwithstanding the opinion sometimes entertained, the influence of Medical science upon the prosperity of the Assurance Offices is of the highest importance. The existence of disease, although latent to the general observer, is discovered by the acuteness of the Medical examiner, and many risks are thereby obviated; and the weight to be attached to hereditary predisposition and to the past history of the patient can be duly estimated only by the assistance of skilful Medical Practitioners. Dr. Brinton's lucid views on the subject will be found exceedingly useful in guiding the opinions of those whose duties connect them with Life Assurance Companies.

On Calculous Disease, and its Consequences. Being the Croonian Lectures for the Year 1856, delivered before the Royal College of Physicians. By George Owen Rees, M.D., F.R.S. Pp. 81. London. 1856.

From the long attention which Dr. Owen Rees has paid to the subject of urinary diseases, any work upon that subject coming from his pen must command respect. In the present Lectures, the Medical history of calculus is clearly and concisely detailed. Dr. Rees considers that uric acid is, in the greater number of cases, the origin of vesical calculi; and that, even in phosphatic calculi the nucleus is a portion of uric acid, around which the phosphatic salts are deposited. In accordance, too, with the views of Dr. Aldridge, of Dublin, Dr. Rees considers that the oxalate of lime calculus is derived from the chemical change of the elements of uric acid; the latter acid, in combination with the elements of water, being resolved into oxalate of ammonia, formate of ammonia, and carbonic acid. He also argues, that oxalate of lime is not formed in the blood, but is produced after the urine has been secreted by the kidney; and that, in the recorded cases of oxalate of lime in the urine, the latter salt has been formed by *heating* the urine, by which means the uric acid is converted into the oxalic salts, the lime always existing in the urine furnishing the calcareous base. The subjects of hæmaturia and purulent urine are carefully considered, in relation to calculus in the kidney and bladder, and to pyelitis; and a useful caution is given, in case of hæmaturia, not to make too free a use of instruments for the discovery of calculus in all cases, because the symptoms sometimes depend upon malignant disease. As uric acid is the chief cause of calculus, the citrate of potass, in doses of ½ a drachm, is recommended for administration in the uric acid diathesis; and even where phosphatic calculi are forming round an uric acid nucleus, the same alkaline remedy is not inappropriate. Dr. Rees's views, to which we have scarcely done sufficient justice, are very ingenious, and of great practical value.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

CINNAMON IN METRORRHAGIA.

By M. CHOMIER.

M. Chomier, after adverting to the eulogiums, often exaggerated, passed upon this substance by some of the German writers, observes that, as far as he knows, M. Gendrin alone has laid down the indications for its employment. That author states, he has employed it with remarkably good effect in chronic metrorrhagia, as also in the acute form, when the first symptoms have been subdued by blood-letting; and he has often been surprised at the rapidity of the results produced. The form that most promptly yielded to its influence was that occurring some days after delivery, unaccompanied by plethora. The author has observed it employed most beneficially by M. Teissier, of Lyons, and it is upon his cases the present memoir is based.

Metrorrhagia is very rarely primary, being most commonly connected with a general affection, of which it is merely an epiphenomenon, or dependent upon a local affection of the uterus and its appendages; and it is only in certain cases that the cinnamon can be usefully given:—1. *Metrorrhagia due to the chlorotic condition.* This, both in its manifestation and recurrence, seems closely connected with the regular return of the menses, whence, indeed, its name "menorrhagia." Iron, properly administered in the intervals, will often rapidly modify the chlorotic condition; but, even when well supported, it often proves powerless against menorrhagia, and, when we resort to the hæmostatic power of alum, tannin, or ergotine, gastralgia or other disorders of the stomach often oblige us to renounce their employment. It is in such cases M. Teissier has found cinnamon, given a few days prior to the period, so useful. It is only palliative and fugacious in its effects; and, in order to operate upon the chlorosis itself, M. Teisier combines iron filings with it. 2. *Metrorrhagia symptomatic of cancer.* According to M. Teissier's observations, ergotine and tincture of cinnamon are the best means for treating the hæmorrhage of the advanced period of cancer; but the former, while possessing a remarkable power over the hæmorrhage, produces such an aggravation of pain, as to compel its rejection. The tincture of cinnamon exerts a similar power over the discharge, without this inconvenience.

Given in doses of 2 to 4 grammes, it suppresses the metrorrhagia, often in a very short time. In all cases, by its prolonged employment, we are able very sensibly to diminish those daily losses of blood which take place in almost all women in the second stage of cancer of the cervix, and we often succeed in suspending all discharge for more or

less time. The cinnamon also exerts a beneficial effect on the economy. The strength and digestion are improved; and when we allay the pain also by anodynes, so great an improvement occurs in some cases as to lead the patient to hope for a speedy cure. 3. *Puerperal metrorrhagia.*—Lymphatic, feeble, cachectic women, with lax tissues and languid circulation, and liable to irregular menstruation or chronic leucorrhœa, are often seized with hæmorrhage during pregnancy, which in the end may lead to abortion. Here a tonic treatment, as by iron and bitters, is clearly indicated, and cinnamon exerts the same useful effect as in chlorotic patients with too abundant menstruation. Such women are also very liable to hæmorrhage from inertia of the uterus after delivery, and constitute the cases in which ergot is so beneficially given just prior to the expulsion of the child. From facts he has observed, however, M. Teissier is convinced that the ergot is mischievous to the child; and for such women he prescribes, hour by hour from the commencement of labour, a draught containing 4 grammes (ʒi.) of the tincture of cinnamon; and in the limited number of such cases that have occurred to him, with the best effect. Such women are liable to repeated hæmorrhage during the puerperal state, and although the discharge may not be abundant, it becomes important by its persistence, and the alarming degree of chloro-anæmia it may rapidly induce. The cinnamon is here of surprising efficacy. Six of the cases observed in M. Teissier's wards are given. *Rev. Med. Chir.* Tom. XVIII. P. 10.

EXCERPTA MINORA.

Glycerine in Hospital Gangrene.—M. Denonvilliers has lately been employing, at the St. Louis, glycerine with great advantage in several cases of Hospital gangrene, some of them very bad ones. The wound is covered with a fenestrated compress, spread with cerate, and immersed in glycerine, and over this is placed charpie, soaked in the same substance. The pain ceases almost immediately, and the progress of the gangrene is arrested, the whole aspect of the sore undergoing a complete alteration in from twenty-four to forty-eight hours. *Gaz. des Hôp.* No. CXX.

Subcutaneous Effusion of Blood.—M. Velpeau observes that when, after severe contusion, blood is infiltrated, whatever the extent of the lesion, complete resolution may occur; while, when it forms a collection, absorption is powerless, and a hæmatic tumour is formed that often necessitates surgical intervention. Whenever the disposition of parts permits, we should, therefore, convert this collection into infiltrated blood, by employing strong pressure, so as to crush the sanguineous clots, and disperse them amidst the surrounding cellular tissue. This can only be done, however, when there is a solid *point d'appui*, as a firm membrane or bony surface, against which we can direct our pressure. In this way, M. Velpeau has recently induced a rapid absorption of such an effusion, situated in front of the tibia.—*Gaz. Hôp.* 1855. No. CXI.

Iodide of Potassium in Asthma.—It would seem from a discussion at the Providence Medical Society, that iodide of potassium, given in five or six grain doses every few hours, exerts a remarkable effect in the relief of asthma, and often prevents a return of the paroxysms. In a less degree, it has often been found of considerable use in bronchitis and croup. Its employment is purely empirical. A chief effect in several cases seems to have been the increase of the urinary secretion. *Boston Journal*, Vol. LIII. p. 152.

Diagnosis of Fibrinous Concretions of the Heart—M. Lavirotte, after alluding to the insufficiency of the signs hitherto proposed, adduces a new one, viz., exaggeration of the sonorousness of the chest, accompanied by normal respiratory murmurs. The polypus obstructs the circulation, and the lungs no longer receiving new blood, while they get rid of that which they have vivified, only contain the minute quantity serving for their nutrition; on the other hand, nothing opposing the introduction of air, they become less dense, and give rise to the exaggerated sonorousness.—*Rev. Med. Chir.* Tom. XVIII. P. 229.

Sulphate of Bebeerine in Menorrhagia.—Dr. Merrill speaks of the great advantage he has derived from this substance, given in 5-grain doses every few hours. In other cases it has relieved leucorrhœal discharges, and given tone and vigour to the vagina when relaxed by such discharges. He says, also, that it is the only internal remedy upon which reliance can be placed in *pruritus vulvæ.*—*New York Journal*, Vol. XV. P. 433.

FOREIGN CORRESPONDENCE.

FRANCE.

[From our Paris Correspondent.]

Paris, June 1, 1856.

Many interesting papers have been communicated to the principal learned Societies of Paris, during the last three weeks. In a paper, presented on the 12th of May to the Académie des Sciences, M. Berthé relates some experiments upon the faculty of assimilation of various fatty substances. He gave alternately to the same man the same quantity of the following kinds of fatty substances: butter; almond, olive, and whale oils; English cod-liver oil; cod-liver oil rendered clear by alkalies and charcoal; pure brown cod-liver oil. The dose was one or two ounces a-day. After twelve days there was no more assimilation of the olive and almond oils; *i.e.*, the whole quantity taken in a day was found in the fæcal matters; after about a month it was so with butter, whale oil, the English and the clear cod-liver oils. On the contrary, after a month, when pure brown cod-liver oil was taken, there was no appreciable increase in the quantity of fat in the fæcal matters. The conclusion is, that the most assimilable of all the fatty substances experimented upon is the brown cod-liver oil.

All that relates to the existence of sugar in the blood is very interesting, and deserves to be noticed. The following facts are in opposition to the generally admitted opinions, and they show how much we have to learn on this subject. In a paper presented to the Académie des Sciences on the 26th of May, a Veterinary Surgeon, M. Chauveau, affirms, that he has found:—1. That even after a prolonged abstinence, there is glycose in the blood of horses and dogs; 2. That there is always more glycose in the blood of an artery than in the blood of a corresponding vein; 3. That the blood existing in different arteries of the same animal, always contains the same quantity of glycose; 4. That, except certain veins, (the vena portæ, the hepatic veins, and the upper part of the inferior vena cava,) all the veins always contain the same quantity of glycose, whether the animal is digesting, or has been deprived of food for some time; 5. That in animals, either fasting or fed only upon meat, the blood of the hepatic veins always contains more glycose than the other veins, the vena portæ included; 6. That the quantity of glycose contained in the cavities of the two sides of the heart is exactly the same; 7. That pure lymph always contains glycose, even after a long fasting; 8. That the solid tissues of the body, except the liver, never contain glycose. Many important conclusions are drawn from these facts by M. Chauveau; we will point out two or three of them:—1. The lungs are not the place where glycose is destroyed; 2. There is a certain quantity of glycose destroyed in the capillaries of the systemic circulation; 3. The liver is the only organ where glycose is produced.

A Physician of talent, M. Ozanam, in a paper presented to the Académie des Sciences, on the 26th of May, announces that bromine is a specific in the pseudo-membranous affections. He has treated successfully fourteen cases, two of which were cases of true croup. He employed either bromine or bromide of potassium. The dose was from one to ten grains a-day, in five ounces of a potion.

A very remarkable paper has been read, on the 13th of May, by Professor Charles Robin, at the Académie de Médicine. The conclusions may be summed up as follow:—1. There is a peculiar and constant alteration of the walls of the brain capillaries in cases of cerebral hæmorrhage; 2. This alteration, beginning in the smallest capillaries, extends from these to the larger blood-vessels, and particularly to the arteries, and passing from the inner membrane to the external ones; 3. A similar alteration exists in old people, and sometimes in adults, but in apoplectics it is more advanced; 4. This alteration consists in the production of fatty granulations or drops in the walls of the blood-vessels, these granulations taking the place of the membranes of these canals. We are pleased to see that the observations of M. Robin confirm and extend those published six years ago by Mr. James Paget in a paper on "Fatty Degeneration of the Small Blood-Vessels of the Brain, and its Relation to Apoplexy."—London *Medical Times and Gazette*, 1850.

In a letter to the Académie de Médicine, M. Rilliet, of Geneva, publishes the results of his researches regarding the influence of marriages between relatives upon the physical and the mental organizations of their children. In Geneva such marriages are very frequent, and, therefore, the field of observation being large, M. Rilliet has been able to collect a great many facts. He first states that such marriages frequently are followed either by absence or by retardation of conception, and also by abortion, and the production of monsters. Many diseases frequently exist in children born from parents who are relatives:—epilepsy, imbecility, or idiotcy, deafness and dumbness, are the most frequent. Such children are often lymphatics, and predisposed to all the diseases depending upon a scrofulo-tuberculous diathesis. Many of these children die young; and if they live after the first infancy, they do not resist disease as well as other people. In the same family it is not the same disease which exists in all the children; and, for instance, one of them is epileptic, a second is imbecile, a third is only slow in his physical and moral development.

M. Gosselin made a very interesting communication to the Societé de Biologie on the 24th of May. He has ascertained that in three cases where, after the death of patients, he has examined the testicles, there is a peculiar danger in employing iodine injections in the vaginal cavity as a means of curing hydrocele. This danger consists in the absence of the secretion of a sperma fit for fecundation. In these three cases no spermatozoa were found in the seminal vesicle of the side, where a hydrocele had been treated by iodine injections. In experiments upon dogs M. Gosselin has found also that, after such injections, the production of spermatozoa does not take place, and that the testicle becomes pale, and smaller than before.

The Academy of Sciences has elected M. Claude Gay in the section of Botany. M. Gay obtained twenty-eight votes, and one of his competitors, M. Duchartre, obtained twenty-seven votes. The Academy is divided into two parts, each of which has about the same number of voters; so that the elections are decided by one or two votes only. So it has been for M. Jobert and M. Gay.

GENERAL CORRESPONDENCE.

THE RUGELEY POISONING CASE.

ANTIMONY AS AFFECTING THE ABSORPTION OR DECOMPOSITION OF STRYCHNIA.

[To the Editor of the Medical Times and Gazette.]

Sir,—On reading carefully your account of the late Trial in last week's number, it struck me that one important point might have been more satisfactorily cleared up, *i.e.*, the effect which the previous administration of antimony to Cook may have had in hastening the absorption or causing the decomposition of the strychnia, so that Dr. Taylor was unable to discover it.

There surely was time before the Trial for some experiments to have been made on animals, in order to ascertain if it has either or both of these effects; because if it has, it would have at once removed the only shadow of a doubt of Palmer's guilt from every mind. I am, etc.

Alfriston, June 2, 1856. T. F. Sanger, M.R.C.S.

TETANUS ARISING FROM VENEREAL DISEASE.

[To the Editor of the Medical Times and Gazette.]

Sir,—None of the Medical witnesses in the case of the "Queen *v.* Palmer" appear to have seen a case of tetanus arising from venereal sores and irritation.

The following case, which came under my notice about sixteen years ago, in the "Strangers' Hospital" at Hâvre, will, probably, be read with interest:—

A seaman, on board an American vessel, was admitted to the Hospital, and on examination it was found that the glans penis was enormously swollen, and ulcerated in two or three places. The swelling was occasioned by a constriction of the glans of the prepuce, which was in a state of paraphimosis. This constriction had existed for several days, and the constricting ring was of a hard and almost horny texture; its division was followed by slight relief; and on the second or third day after admission symptoms of tetanus made their appearance, and terminated fatally about the third day.

I give this case entirely from recollection, but it was sufficiently remarkable to impress itself, in its main particulars, on my memory.

The patient was a strong and very muscular man, whose bloated aspect revealed with sufficient accuracy the degraded and intemperate course of life which he (in common with the lower class of sailors at the Port of Hâvre, and other seaports) had been leading, previously to his admission into the Hospital. I am, &c.

Walter Fergus, M.D.

Hermitage, Marlborough, May 30, 1856.

"IDIOPATHIC TETANUS." (?)

[To the Editor of the Medical Times and Gazette.]

Sir,—The subject of "tetanus" being the source of so much discussion, and being so prominently before the public at the present time, I am induced to extract from my "Note-Book" the particulars of a case which occurred during the time I was a student at the Devon and Exeter Hospital, and which I had ample opportunity of watching. If you think it worthy a place, you are at liberty to insert it in your Journal.

I am, &c. Henry Dicken, M.D.

Ashby-de-la-Zouch, Leicestershire, May 23, 1856.

A. B., servant, aged 27, got up in the morning apparently well, when he was suddenly seized, without any apparent cause, with a violent spasmodic convulsive affection of the muscles of the face; he was immediately brought to the Devon and Exeter Hospital (at 11 a.m., February 14), when the symptoms presenting themselves were of the most distressing description. The spasms, which came on every minute, or oftener, affected the whole side of the face, which became perfectly rigid, and the mouth was drawn forcibly to either side, the teeth grinding together in the most horrible manner, loud enough to be heard over the whole ward; the temporal muscle particularly was affected with spasmodic contraction. The mouth was firmly locked, so that it was perfectly impossible to open it; and the moment he attempted to articulate a word, he was seized with most frightful spasms, which horribly distorted the countenance. The spasms were confined entirely to the face, head, and jaws, the muscles of the trunk and extremities as yet not being affected. Was quite unable to account for the attack in any other way than from being exposed to intense cold the previous night while driving in a cart. He was immediately bled from the arm to the amount of twenty-four ounces, had a hot bath (a), and a glyster thrown up, with ol. terebinth ʒiss. in a pint of gruel. The spasms continued with the same violence, notwithstanding that the loss of blood caused complete syncope, and a total temporary cessation of the action of the heart. The following liniment was rubbed in over the whole of the spinal column, neck, and jaws:—Camphoræ ʒss., tinct. opii ʒss., ol. olivæ ʒiv., and the following draught to be introduced into the mouth, by forcibly separating the teeth by means of a strong tea-spoon when the spasms sufficiently relaxed:—Tinct. opii. ɱl., hyd. submur. gr. x., aquæ. ad ʒss., which was with great difficulty introduced into the mouth, and swallowed.

The friction was continued for a very considerable time, and a poultice was applied round the throat, composed of pulv. opii. ℈i. and meal sufficient to wrap round, and applied hot. Four p.m.—Feels easier; the spasms have diminished in violence and frequency; an hour and a-half has elapsed since the last; he is now able to articulate a few words, and says, "the liniment rubbed over the spine and jaws, relieved him more than anything during the convulsions." The injection has come away, and brought with it a large evacuation from the bowels; tendency to vomiting, which, however, passed off.

Nine p.m.—Much better the last few hours; no return of the spasms; free secretion of urine; can open his mouth a little wider, but dreads to attempt it; can swallow fluids; says the pain he felt during the attack "was confined entirely to the face, jaws, and temporal muscle."

February 15.—Much better this morning, has had a good

(a) At temperature o 110.

night's rest, no return of spasms. To continue small doses of opium and glysters.

16th, nine a.m.—Much better, slept well. Nine p.m.—Continued going on well until six this evening, when the spasms returned slightly; was again bled to eight ounces, had another hot bath, and tinct. opii ml. every four hours. The legs and arms became spasmodically affected, but not to a violent degree; was ordered a strong injection of tobacco, which produced intense faintness, after which he became much relieved.

February 17.—Much improved; no return of spasms; opiates have been continued; mouth sore with mercury; tongue much swollen; has passed a very black motion, and can swallow fluids easily.

21st.—Going on well; has brought off four or five very large tape-worms by his bowels, and has had no return of the spasms. Left the Hospital quite recovered.

Remarks.—This being a genuine case of idiopathic tetanus, the difference between tetanic and epileptic convulsions was peculiarly well marked, and the diagnosis was rendered sufficiently clear. There was in this case no loss of consciousness, no biting of the tongue, no attempts at screaming, no suffusion of the face during the violence of the spasms; but the most intense contortions of the countenance and involuntary convulsive action of the entire muscles of the face and head I ever witnessed. This attack happily did not continue in severity more than about two hours, when it gradually relaxed, and did not occur again until the 16th, at nine p.m., when a slighter repetition of the same spasms occurred, and affected the muscles of the upper and lower extremities as well; but these yielded to a strong tobacco injection and large doses of tincture of opium internally. There was in this case no dislike to being rubbed over the whole body; indeed, the liniment appeared to give relief, and to control the violence of the spasms. A striking and unusual peculiarity existed in this case, which was the subsidence of the symptoms for two days, and their recurrence with increased severity; whether this state was induced by irritation of the bowels, from the presence of tapeworm, is a subject of speculation; but it seems not improbable that they may have had much to do with the convulsive attack, thereby establishing an important link in the chain of diseases of this class, and the close connexion existing between many forms of convulsion, arising from remote irritation in the bowels, whether commencing in the slighter degree of irregular muscular contraction, as in chorea, and passing through the different degrees of simple "convulsive," "epileptic," or "tetanic convulsions," according to the peculiarity of the constitution, or the severity of the exciting cause.

P.S.—The more proper term for the above recited case would be probably "trismus," as the muscles of the face and jaws were alone implicated at first.

[This case was dependent upon an irritating cause in the bowel, and could not therefore be called idiopathic.—*Ed. M. T. & G.*]

CONNEXION OF BRONZED SKIN WITH DISEASE OF THE SUPRA-RENAL CAPSULES.

[To the Editor of the Medical Times and Gazette.]

Sir,—It is only within the last few days that my attention has been drawn to the alleged connexion between disease of the supra-renal capsules and a peculiar discoloration of the skin. My friend and former pupil, Mr. Samuel Rhind, of Burley, Yorkshire, mentioned to me the series of cases now in course of publication in your Journal, illustrative of this supposed connexion; and our conversation brought vividly to my recollection a case strongly corroborative of the reality of the connexion. If you think, with me, that the case possesses sufficient interest, I shall feel obliged by your giving it a place in the pages of your paper.

Mr. J. E., aged 54, by profession a solicitor, consulted me in February, 1852. He was a man of rather below middle height; of dark complexion; nearly black hair; stout, and inclined to corpulence; lame from early life from diseased hip-joint; of temperate habits, and of active life latterly, though in early life he had been kept close to the desk, and had worked hard as a clerk. Considered that he had always enjoyed good health; but said that for many years he had suffered from habitual looseness of the bowels, to the extent of three or four evacuations regularly every morning, and frequently as many during the rest of the day, and had occasionally had hæmorrhoids slightly. He had also experienced some slight attacks of gout.

Notwithstanding this habitual diarrhœa, he had got stout, and considered himself in very good health, till September 5, 1851, when he was thrown out of his carriage, and sustained a severe scalp-wound, with concussion of the brain, with erysipelas following on the wound, and a paroxysm of gout succeeding to the latter. From all this he slowly and with difficulty became convalescent; nevertheless he did not feel himself the same man; and, in consequence, he spoke to me, who had not previously attended him.

On coming under my observation he complained of feeling himself generally ill, but stated that he had no pain anywhere. He was still rather corpulent, but not nearly as much so as he had been. He had no headache; his mental powers were unimpaired; his memory (singularly retentive always) unaffected, his special senses perfect; he had no cough, no difficulty of breathing, no palpitation, no uneasiness of back. He had a very fair appetite, and enjoyed his food, but his diarrhœa still continued, and was very troublesome; and as soon as ever it became arrested by any means, so surely vomiting came on. He had also attacks of apparently causeless vomiting, of most uncertain occurrence, most frequently immediately after taking food, and even sometimes during a meal. There was one singular peculiarity in his aspect,—his skin was universally of a dirty chalky yellow hue, more marked on the exposed surfaces; in the face, of a deep yellowish-brown; in the hands, of a tint resembling the stains of walnut juice, the conjunctivæ retaining their natural white colour. This alteration of his outward appearance was, as I said, most marked and peculiar; it worried him, and he repeatedly asked me what it meant, and was constantly drawing my attention to it. He complained of general uneasiness, of a sense of weariness and languor, and of muscular debility; and complained more than would be expected from one still looking stout and robust. He laid great stress on the absence of pain; appeared extremely solicitous to know what ailed him; expressed much apprehension about himself, and manifested considerable dread of death, feebly attempting, at the same time, to make light of his condition. I submitted him to repeated and most careful physical examinations. I frequently inspected the evacuations from the bowels; they were abundantly tinged with bile. I over and over again tested tthe urine, (by heat and nitricacid)—it contained no albumen—there were no deposits, and with every care that I could bestow upon the case, could not find any evidence of disease in any organ. I was fairly puzzled to account for the symptoms. There was decidedly some serious derangement of the nutritive functions; but to the questions, Whence came it? and Whither did it tend? I could give no satisfactory answer. It was indeed well and pithily observed by his regular attendant, Mr. Thomson, of this town, "throw a veil over his face, and pronounce him quite sound."

Meanwhile, week after week, and month after month rolled on, not only without any amendment, but with evident gradual aggravation of all his symptoms. The skin became still more changed in hue, till the casual passenger in the street would turn to gaze at him as he drove by; he became thinner, but never emaciated, and his muscular power became more and more enfeebled. He took a variety of tonic and astringent medicines with no evident good result, although he thought himself better for a certain time, during which he took cod-liver oil, quinine, and opium simultaneously. At last, in August, he began to have slight transitory attacks of loss of consciousness, with convulsive disorder of the muscles of the face and left side of the body; these were of irregular occurence, but continued occasionally till the end of the month. In the night of the 30th he became violently delirious, and was very vociferous. This excitement passed rapidly into coma, and he died apoplectic on the morning of the 1st of September.

I made an examination of the body after death, but permission was not given to examine the head. The discolouration of the skin was as evident in death as it had been during life; there was even yet an abundant deposit of deep yellow-coloured fat beneath the skin and in the omentum; and the muscles were of a peculiar deep red colour, indeed the fat and flesh

more resembled the flesh and fat of an Alderney cow, than that of a human being.

I made a careful and strict search into the condition of all the organs of the thoracic and abdominal cavities, and I could find no trace of morbid change in any one of them; save the spleen and supra-renal capsules; every other organ, so far as the scalpel can detect morbid conditions, was perfectly healthy; and I say this the more positively, because I have, throughout the whole of my professional life, enjoyed great opportunities of studying morbid anatomy, and have made personally several hundred dissections. The spleen and supra-renal capsules were much changed; the spleen was much enlarged, and so soft as to break down under very slight pressure; and its interior resembled a mass of crushed mulberries. The supra-renal capsules were considerably enlarged, of firm consistence, and on division presented an appearance closely resembling a tuberculated gland. I am &c.

W. Symonds Rootes, M.D.

Ivy House, Ross, Herefordshire, May 27, 1856.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, May 13, 1856.

Cæsar Hawkins, Esq., President, in the Chair.

THE RESULTS OF SOME INQUIRIES INTO THE CONDITION OF THE DEAF AND DUMB.

By JOSEPH TOYNBEE, F.R.S.,

Aural Surgeon to St. Mary's Hospital, Consulting Aural Surgeon to the Asylum for the Deaf and Dumb, and Lecturer on Aural Surgery at St. Mary's Hospital Medical School.

This paper embraced the following points:—The diseases producing deaf-mutism; the condition of the ears in the deaf and dumb, as ascertained by examination during life; the condition of the ear in the deaf and dumb, as revealed by dissection; the amount of hearing possessed by children educated as deaf and dumb; the mode of examining a child supposed to be deaf and dumb; the Medical treatment of the ears of the deaf and dumb. The facts adduced were the result of an analysis of the cases of 411 children examined in the Asylum. That division of the paper which referred to the condition of the ear in deaf-mutes, as revealed by dissection, was illustrated with a minute description of four dissections made by the author, and by a tabular view of thirty-one others, made by various preceding observers.

Dr. Webster asked the author if he had observed whether deaf-mutism was more common in males than females, as his (Dr. Webster's) experience led him to believe. The malady was more common in hilly than in flat countries. There were 10,314 deaf-mutes in England in 1851, or one in every 1738 residents; the proportion in Scotland being one in 1340. In the canton of Berne in Switzerland, the ratio was one in 200. n England and Wales the proportion of males was as 121 to 100 females. He believed deaf-mutes rarely lived beyond 60 years of age. Formerly, deaf-mutes, when at the age of 3 years, were destroyed as monsters. He thought it possible that the "wild men of the woods," many curious instances of whom had been related, were deaf-mutes who had been cast away by their parents, and lived among the lower animals. The malady was much promoted by the degeneracy of the human species: it was hereditary, and intermarriages among deaf-mutes were, therefore, highly objectionable.

Dr. Babington said that deaf-mutism was very commonly associated with a scrofulous diathesis. He had known deaf-mutes intermarry, the offspring being sometimes affected in the same way, and sometimes perfectly healthy. He had known deaf-mutes attain the age of 70; but as the constitutions of these persons were generally weak, they could not be ordinarily expected to live long.

In reply to the President, Dr. Babington stated that he had not observed that the disease prevailed in any one class more than in others.

Mr. Brodhurst asked if Mr. Toynbee had observed in congenital cases any malformation of the fauces, as he (Mr. Brodhurst) had done.

Mr. Moore thought the morbid appearances of defects in the ear in some of the cases described were not sufficient to account for deafness; and he asked Mr. Toynbee if he had extended his examinations to the auditory nerve.

Dr. E. Smith mentioned the cases of three deaf-mutes in one family, all of whom lived beyond 60.

Dr. Babington stated that out of about 300 deaf-mutes at the Asylum, 40 were the offspring of first-cousin marriages.

Mr. Toynbee stated that the Asylum received a certain number of boys and of girls, and being always full, no accurate statistics could be obtained as to the comparative prevalence of the disease in the sexes. The malady often resulted from the marriages of cousins, and it was sometimes ascribed to the mother when pregnant having seen a deaf-mute. He knew one case in which an entire family, six or seven in number, were born deaf and dumb, neither parent having ever seen a single case of deaf-mutism. He had not observed any malformation of the fauces. Persons residing in valleys were more subject to the disease than those living on the high ground.

ON THE DIAGNOSIS OF CERTAIN FORMS OF INFECTING AND NON-INFECTING SYPHILITIC SORES.

By HENRY LEE, F.R.C.S.,

Surgeon to King's College and the Lock Hospitals.

The author observed that Jenner regarded a peculiar kind of inflammation to be essential to the production of the effects of the vaccine poison on the patient's constitution; and Willan made similar observations respecting the inoculation of the poison of small-pox. Unless the morbid process peculiar to each poison were gone through, although other constitutional effects might follow, yet that which constituted the peculiar action of the poison upon the patients would not. It was the same with respect to the syphilitic poison; the peculiar morbid process which indicated its introduction into the system was attended with inflammation of the adhesive character, as in the case of the cow-pox. The application of the syphilitic poison often gave rise to true suppuration in the inoculated part, but this was essentially a different morbid process to that by which the poison was introduced into the patient's system. Where a syphilitic sore at an early stage produced well-formed pus-globules, that affection would not infect the patient's constitution; the virus from such a sore might be readily enough inoculated; much more certainly, indeed, than that from a genuine infecting sore. Inoculation, therefore, was no test of the necessity of treating a patient by mercury, since these suppurating sores, most readily inoculable, were not, if left to themselves, followed by secondary symptoms. Induration, the author regarded as affording no invariable evidence of the adhesive inflammation; for, in the first place, the product of the inflammatory action might be poured out upon the surface of the affected part, without infiltrating its tissue, which was as true of the adhesive as of the suppurative inflammation, and in neither case would there be any induration of the inflamed part;—and, in the second, the presence of induration gave no invariable indication of the nature of the inflammation which produced it. The sense of touch alone would not invariably indicate whether the effused lymph would remain such until absorbed, or whether, in fact, the inflammation was of the adhesive or suppurative character. The information which the sense of touch failed to give, the examination of the secretion from the infected part would often supply. Examined under the microscope, fresh from the different sores, the globules in the discharges would often appear very similar; but if acetic acid were added before examination, a clear distinction might be drawn between those cases in which true pus-globules were formed and those in which they were not. When true pus-globules were formed at an early period, and were not produced by artificial irritation, the author maintained that no constitutional syphilitic disease would result. The various points mentioned in the paper were illustrated by cases.

In answer to Mr. Pollock, Mr. Lee said, that his experience was similar to that of M. Ricord—that when a sore gave rise to a suppurating bubo, secondary symptoms would not follow.

Mr. Cock dissented from this conclusion, and stated that he believed he had seen cases in which a suppurative sore with more or less hardness had been followed by a bubo which had suppurated, and then by secondary symptoms.

The Society then adjourned.

THE PATHOLOGICAL SOCIETY.

Tuesday, April 15, 1856.

Mr. Arnott, President, in the Chair.

(Continued from page 526.)

Mr. Henry Thompson showed specimens of the

FUNGUS OF PITYRIASIS VERSICOLOR.

He agreed with other observers in believing it peculiar to that disease, and differing from those of favus and ringworm. He had recently, in four different cases, succeeded in finding it by simply scratching away the branny scales, and placing them under the microscope. In all these cases he had found the sulphurous acid, used as a lotion, efficient to the cure. (In addition to the specimen placed under the microscope, a good drawing of the fungus was shown.)

Dr. Wilks exhibited a specimen of

CYSTIC DISEASE OF THE LIVER AND KIDNEY.

Dr. Wilks's specimen was an old preparation from the Museum of Guy's Hospital, exemplifying this rare form of disease, and which he brought to the Society to be placed in association with a very similar specimen shown at the last meeting by Dr. Bristowe. Like the one alluded to, the liver was converted into an immense number of cysts, and which closely resembled those of the kidney with which it was in contact. He quoted from Budd and Cruveilhier, who speak of cysts originating in dilated ducts from obstruction to their passage, but thought these specimens displayed a disease altogether different—a chronic cystic degeneration analogous to what is seen in various other organs, and unattended by any marked symptoms.

Mr. Gamgee remarked that cystic dilatations of the hepatic ducts were common in the livers of the lower animals, more often caused by distension of those ducts by entozoa, the *distoma hepaticum*, or common fluke, being the one most frequently found.

Dr. Crisp confirmed the observation.

Dr. Peacock brought before the Society a specimen of

DISEASED HEART.

It had been forwarded to him by Dr. Thurnam, of the Wilts County Asylum. The heart was removed from a man, 64 years of age, who had for a few months been an inmate of the Asylum, labouring under symptoms of melancholia, with suicidal propensity, and who had for years suffered from dyspnœa, lividity of the face, and other symptoms of cardiac disease. He died of pneumonia of both lungs, at the end of the last year. The heart was much hypertrophied and dilated, weighing 15½ ounces, and the cavity of the left ventricle was large, and its walls measured above an inch in thickness. There was very marked obstructive disease of the aortic orifice, dependent on congenital deformity of the valves, there being only two segments. One of them was apparently formed by the fusion of two distinct valves, there being the remains of the usual frænum or band on the aortic side. The valves were, however, nearly of the same size and form. From extensive thickening and ossification the mode and origin of the malformation was less clear than is frequently the case.

Dr. Murchison showed a specimen of

HYPERTROPHIED SPLEEN,

from a case in which leuchœmia had existed. The organ, when removed, weighed 2lbs. 5 oz., and had attached to its lower extremity an accessory spleen about the size of a walnut. In its structure there was nothing abnormal, except an increased firmness of the pulp and thickening of the capsule. The blood of the patient from whose body the spleen had been obtained, which had also been examined by Dr. Burdon Sanderson and Dr. Sibson, exhibited under the microscope a considerably increased number of white corpuscles in proportion to the red. These corpuscles, which were not larger than ordinary white ones, on the addition of weak acetic acid, exhibited a single, double, treble, or quadruple nucleus, and some of them contained also a few oil globules. Most of the nuclei were depressed in the centre, and some had a crescentic form. The red corpuscles were not collected in rolls. The patient, a female, aged 37, had always been very delicate, had not menstruated till she was 20; and, though she had been married for eleven years, had no family, and never had a miscarriage. She had always resided in London. In 1850 she first began to suffer from enlargement of the liver, and towards the end of 1853 ascites supervened. From April to September, 1854, she had been a patient in the Hospital for Women in Soho-square, during which period her abdomen had been tapped four times, and 1591 ounces of fluid drawn off. The ascites did not return, and when she left the Hospital, the abdomen was of the natural size. Soon after, a solid tumour began to form in the left side of the abdomen, and she suffered from ulceration of the mouth and throat, with fetor of the breath, closely resembling that resulting from the use of mercury, but not attributable to this cause. For this last affection she had applied to various sources for relief, but obtained only temporary benefit. The ulceration extended, her teeth came out, and portions of the alveolar processes of the jaws exfoliated. Dysphagia came on, fluids taken into the mouth were mostly rejected by the nares, and in March, 1856, she died exhausted. For the last few weeks of her life she had been under Mr. Murchison's care at the Western Dispensary; and for some months before death, she had been remarkably pale and liable to occasional severe attacks of epistaxis and hæmorrhage from the gums.

Dr. Murchision also exhibited a specimen of

DISEASED GALL BLADDER,

the lining membrane of which was encrusted with fragments of carbonate of lime, and which had been taken from the same body as the preceding specimen. These fragments had completely obstructed the neck of the gall bladder, which contained no bile. The liver was in an advanced stage of cirrhosis, and there was bile in the hepatic duct. The incrustations effervesced with acids, and consisted of minute crystalline particles, of a circular form, and with a cleavage from the circumference to the centre.

Dr. Ogle exhibited a specimen of

CYST IN THE FOURTH VENTRICLE OF THE BRAIN.

The cyst, lined partly by thickened arachnoid and subarachnoid tissue, compressed and hollowed out greatly the under surface of the cerebellum, and contained 6 ounces of straw-coloured, limpid fluid. It was associated with dilated lateral ventricles, which held a pint of fluid, and had resulted from hydrocephalus, which occurred originally in an acute form three years before the patient's death, semi-stupor and occasional convulsions having continued ever since. The patient had been subject to occasional headache and vomiting, and died in an attack of convulsions. The case was shown chiefly as illustrating the view of the formation of cysts about the brain, by the hemming in of the results of inflammatory action, and was similar to two cases described by Dr. O'Crea in "Transactions," 1853-4.

Dr. Ogle also exhibited a specimen, showing

ATROPHY OF THE OPTIC NERVES, FROM A CASE OF BLINDNESS.

The parts atrophied were of a yellowish-white, translucent character, the nerves being much more wasted than the tracts, and showing under the microscope nothing but connective tissues, and amorphous granular and fatty material. The nerve tubes in the optic tracts were very much occupied by fatty globules, and in many cases had quite lost all proper anatomical character. The patient died of diseased heart, having been totally blind for twelve or fourteen years.

NORTH LONDON MEDICAL SOCIETY.

April 26, 1856.

Mr. Part in the Chair.

Mr. Norman read a paper on

THE USE OF CUBEBS IN THE TREATMENT OF GONORRHŒA.

He first referred to the causes which led to the disuse of really valuable medicines as being—1. An undeserved reputation; 2. Adulterations; 3. Improper and unskilful use; 4. Indiscrimination as to the causes of failures; and 5. The love of novelty on the part of Practitioners. The cubebs, Mr. Norman thought one of those remedies,—neglected, or

used without sufficient confidence by the Profession, but still greatly in favour with the public, as ascertained from the dispensing Chemists, by whom also it is used largely. Referring to the opinions and practice prevalent at the early part of this century in regard to gonorrhœa—which was then generally held to be a true syphilitic disease, capable of producing "a Lues," and safely treated only by the free use of mercury, over which Mr. Hustor, indeed, considered that no remedy had any control or efficacy—it was not to be wondered at if people ran a little mad in favour of the new remedy, the accidental introduction of which—first from Bengal into Java, and from Java into Great Britain, as recorded in the paper of Mr. Craufurd, (*Edinburgh Medical and Surgical Journal*, January, 1818,) and its further notice by Mr. Adams, (*The London Medical Repository*,) etc.—was sketched by the author. Its claims he deemed to have been well founded then, and to be equally deserved now, though, perhaps, at that time, experience had not been sufficient to show what the medicine could not do, and what aids it required to become in all cases tolerable, and to produce its fullest effects. These might, indeed, be obtained without other aid but regular living and moderate care on the part of robust healthy men; but in irritable and weak habits the stomach was often much disturbed by the remedy if given in adequate doses; and the sufferings produced by the disease in such persons rendered the use of sedative and other remedies necessary. Some suggestions were thrown out for the use of these means. A high rank was then claimed for the cubebs as the best single remedy we possess for the treatment of gonorrhœa—where it did not cure, it gave relief, and prepared a case most expeditiously, safely, and agreeably, for its cure being completed by other means. The failures of the remedy would be few, were due care taken to obviate and combat its disagreement with the stomach. The production of swelled testicle occasionally was laid to its charge, wrongly, as it was believed. The accident had occurred under all varieties of treatment, and they also were blamed for it. Copaiba, and the paste of copaiba and cubebs, injections, blisters, and other remedies for the later stages of the disease, were discussed, and the necessity of using the medicine recommended in the paper, early in the attack, very finely and freshly powdered, in full doses, and with the suggested precautions when the patient was weak and irritable, were dwelt on as the sure means of quickly curing the disease, and preventing complications, and later serious consequences.

MR. GRIFFIN AND THE UNION MEDICAL OFFICERS.

A large meeting of Medical Officers of Poor-law Unions, and of General Practitioners, was held on Friday last, at the Freemason's Tavern, to decide on the form of Petition to be presented to Parliament, and on other business. The Right Hon. the Earl of Shaftesbury, occupied the chair, and opened the business in an effective speech, evincing his thorough sympathy with the objects of the promoters, and also showing that he had an intimate knowledge of the grievances sought to be redressed. Some startling statements were made of the inadequate amount and inconvenient mode of the remuneration allowed to the Medical Officers. The Report of the Poor-law Convention was read by Mr. Lord, as follows:—

"It will be remembered that the grievances and misrule under which the Poor-Law Medical and many of the poor laboured were so great and so much demanding a remedy that, in 1846, a public meeting, over which Dr. Burton, of Walsall, presided, was held at the Hanover-square Rooms, where delegates attended from the provinces, and a large number of the Profession in the metropolis, amounting to many hundreds. On that occasion important resolutions were passed, and a committee appointed, with appropriate officers, to forward the views of the Convention which was then established, in order to obtain an improved system of Poor-Law Medical relief throughout England and Wales. The first Report of the Committee, which was issued in July, 1848, gave the result of a series of inquiries in a tabular form, which were sent to every Union Surgeon, and of answers which were received from upwards of 800 Medical districts; these furnished much material for legislative interference, and formed the basis for subsequent recommendations of the Committee. In furtherance of the proposed alterations, a Deputation waited on Sir George Grey at the Home Office; memorials were presented through deputations to the Poor Law Commissioners, also to the Royal Colleges of Physicians and Surgeons, and to the Society of Apothecaries. Early in February, 1849, a public general meeting assembled in London, numbering nearly 300, which was presided over by Lord Ashley (now the Right Honourable the Earl of Shaftesbury). His Lordship on that occasion was pleased to express his hearty concurrence with the objects of the Convention, coupled with a recommendation that, "as the Union Surgeons had now rendered their organization complete, they should not fail to press their claims on the Legislature, not as a matter of bounty, but as a right." A comprehensive petition to the Commons was forthwith adopted and extensively signed by the meeting, and subsequently presented to the House by the noble Lord. During the session, in order to strengthen this petition, it was deemed advisable to obtain from various parts of the country, separate short petitions; fifty of these, numerously signed, were forwarded from various districts of England and Wales to the Committee for presentation. Similar petitions were also obtained by several gentlemen in the rural districts; Mr. Wells, of Crewkerne, obtained eight; other important petitions were signed by the Clergy, Magistrates, Chairmen of the Boards of Guardians, as well as by the Medical Officers. These latter were presented to Parliament by the respective Members from the immediate neighbourhood from which they came, while the former were entrusted to the care of the late Mr. Justice Talfourd, Mr. Forster, the late Mr. Aglionby, and Lord Ashley. Efforts were subsequently made to establish a Poor-law Medical League, with Branch Associations in the principal cities and towns. 3000 circulars, with a Schedule, were accordingly issued to ascertain the opinion of each Medical Officer. Only 263 answers were received to these applications. Letters were subsequently addressed to those gentlemen who were favourable to the plan, inviting their co-operation as Local Secretaries, but these gentlemen, wanting leisure, as well as neighbouring coadjutors, were in most cases unable to sustain an effective movement; hence the idea of forming the proposed Association was, for the time, reluctantly abandoned. The three Medical Corporate bodies were again addressed, and Deputations again waited on the Minister, then Lord John Russell, as well as on the President. The third published Report stated, in conclusion, that the Committee was reluctant to recommend the dispersion of an Association which owed its birth to the existence of many great evils, and to difficulties, perhaps, insurmountable; but that they were willing to continue or extend their exertions, if the body of Union Surgeons would pledge a more uniform co-operation. The meetings of the Committee were held regularly up to April, 1851, when it was resolved that the state of the public mind was unfavourable to further efforts at that time; an adjournment consequently took place, until some important public movement should arise to warrant the re-assembling of the Committee. On Mr. Piggot's obtaining a Parliamentary Inquiry in 1851, meetings were again held; the House of Commons was petitioned to hear evidence from several members of the Committee, specially named for that purpose; and efforts were likewise made to obtain, if possible, such a Report to the House as might benefit the Poor-Law Medical Staff and the Sick Poor. All real grievances, among a people where there is freedom, rise again and again before the public and demand redress, how much soever they may have been tampered with, or, for a time, concealed. Thus, during the past six months, the inherent vices of the prolonged system have found a fresh denouncing voice in Mr. Griffin, of Weymouth, and Dr. Brown, of Chatham, and other gentlemen connected with numerous Unions. Their plaint has led to an organization, and efforts for redress which have met with a cheerful and manly advocacy by the Medical press, for which most cordial thanks are given. The Committee of the Convention have watched with deep interest, the rise and progress of these combined exertions, and have gladly acted in furtherance of them. The measures proposed in the recently formed association by Mr. Griffin, differ only in some matters of detail from those which were brought forward by the Convention in 1847. In order to obtain a large and influential meeting of Poor Law Medical Officers, and of others interested in this important subject, the Committee of the Convention have co-operated with Mr. Griffin and his friends in convening this assembly; to this body, invigorated by large accessions for fresh effort, the Committee

of the Poor Law Board look. Several members of the Committee attended the annual meetings of the Provincial Medical and Surgical Association at Bath, Worcester and at Brighton, at which resolutions favourable to the cause, and petitions to Parliament in furtherance of the objects sought by the Convention, were agreed to. The regulations of the Board of Health during the prevalence of cholera, gave occasion for a protest on behalf of the Union Surgeons against the imposition of unrequited services, and a third deputation then waited on the President of the Poor Law Board. It was received with courteous politeness; its plaints were recognised and sympathised with; but no redress was promised, and scarcely officially admitted to be practicable. The Committee called attention to the question in the *Times*, and other public journals, by an advertisement headed "The Poor-Law Board; the Sick Poor; their Medical Attendants, and the Rate-payers." Subsequently 1000 copies of this advertisement were printed, one of which was forwarded to each Member of Parliament, with a note respectfully drawing attention to the subject of Poor-Law Medical Relief. At the same time advertisements were inserted in the daily journals, setting forth current cases of hardship and injustice which showed that, under a system so essentially vicious as the present, the poor, as well as the Medical Officer, must frequently suffer. The foregoing formed a part only of the reformatory labours of the Committee. From this condensed review it will appear, that very great, very varied, and long-sustained, were the exertions of the Committee of the Convention, who beg to resign their delegated trust, with an earnest hope that success may result from judicious and well-sustained exertion. Signal official calamities to this kingdom, arising through mismanagement and misrule, will live in the page of History, telling of the Crimea and of Scutari; side by side with this record will be a testimonial to the honour of the Medical Profession, evincing its self-sacrifice and noble devotedness to duty. Could the quiet walk of the Union Surgeons be prominently brought forward, and the injurious effects of the present system on themselves and on the suffering poor be graphically given through the daily press, the public voice would be raised to denounce its operation, and demand a reform; and that voice would further yield to the Poor-Law Medical Officers the tribute which is due to *their* habitual self-sacrifice, to their benevolence, and to *their* earnest devotion to duty.

"Charles F. J. Lord, *Hon. Sec.*"

The following Resolutions were then proposed, and unanimously adopted:—

Moved by Mr. Griffin, seconded by Dr. Sibson:—"That the Report of the Committee of the Convention of Poor-law Medical Officers be received and adopted, and that the cordial thanks of the meeting be presented to the Committee for their past exertions, and particularly to Dr. Hodgkin and the Honorary Secretary, Mr. Lord, for the valuable assistance they have so long rendered to promote the interests of the Poor-law Union Surgeons generally."

Moved by Mr. Griffin, seconded by Mr. Lord:—"That the Petition now before the Meeting be presented to Parliament; and it is desirable that Petitions to the same effect be sent by the Medical Officers of each individual Union and parochial board."

Moved by Mr. Jos. Rogers, seconded by Dr. West:—"That the memorial now before the Meeting be presented to the Poor-Law Board; and it is desirable that memorials to the same effect be sent from the Medical Officers of each individual Union and parochial board."

Moved by Mr. Jennings, seconded by Mr. Anstie:—"That Southeron Escourt, Esq., M.P., be respectfully solicited to take charge of the petition in the House of Commons."

Moved by Mr. Ross, seconded by Mr. Liddle:—"That this Meeting resolve itself into the Poor-Law Medical Reform Association, of which Mr. Griffin be appointed Chairman, and the following gentlemen form a Committee, with power to add to their number:—Messrs. Lord, Ross, Rogers, Ince, Brooks, Young, Grimbly, Jennings, Austin, J. Armstrong, A. S. Edwards, Wellings, Flower, I. C. Cogan, Thurnall, Nason, Warder, J. Reiley, Martin, R. Ransom, Fred. Prince, Dr. Prior, Messrs. R. H. Wightman, J. R. Hutchinson, Richd. Cammack, jun., Dodsworth."

Moved by Mr. Griffin, seconded by Mr. Ince:—"That the thanks of this Meeting be given to the Medical Press for the powerful aid they have rendered the cause."

Votes of thanks were passed to Mr. Griffin and the Chairman, and the Meeting separated.

The form of Petitions was essentially the same as that published by us in the *Medical Times and Gazette* for May 24, p. 528. The only alterations are in paragraphs 3, 14, and 19 of that to the House of Commons, and in paragraph 5 of that to the Poor-Law Board. These (as amended) are as follow, the amended parts being italicized:—

3. That their services are of a most arduous description, requiring attendance by night and by day, and exposure to the most inclement weather *and infectious diseases*, by which their health is seriously endangered, and their lives are frequently shortened.

14. That all *Poor Law* Medical appointments, *whether Union, Parochial, or under Gilbert's Acts*, not only now in force, but hereafter to be made, shall be declared permanent, subject only to good conduct. The districts, however, to be diminished or increased in extent from time to time, as the Poor-Law Board *or public authorities* may think advisable.

19. That the Poor-Law Board be requested to define the class of persons entitled to Medical relief, and that it be not left to the discretion of the Relieving Officer, *or Overseer, or Churchwarden.*

5. Your memorialists further request that your Honourable Board, will immediately, in some degree, lighten the burden of their arduous duties, by ordering that the columns for the weekly entry of visits to patients be ruled for *three* months to preclude the necessity of writing names, &c., more than once during the *thirteen* weeks, and thereby *causing a saving to the nation of twelve books out of every thirteen now used, as in the case of the Amersham Union.*

We understand that 98 signatures were attached at the meeting to the Poor-Law Board Memorial, and 104 signatures to the Petition to Parliament. Many could not stay to sign, as the trains left too early, but would sign the local Petition.

Wirral.—At an adjourned meeting of the "Birkenhead Medical Association held at the Craven Rooms, May 22nd, Robert Ellison Gorst, Esq., in the Chair, the following Resolutions were proposed and carried:—1. That the best thanks of this meeting be conveyed to R. Griffin Esq., for his laudable endeavours to improve the position of Poor-Law Medical Officers. 2. That the Medical Officers of this Union, without pledging themselves to details, highly approve of the general principles contained in Mr. Griffin's appeal. 3. That 5s. per quarter be remitted to Mr. Griffin to defray expenses. 4. That Mr. Davies Russell be appointed Local Treasurer and Secretary. 5. That a copy of these Resolutions be forwarded to Mr. Griffin and the Medical Journals.—(Signed)—James Cuttall, Robert Ellison Gorst, Joseph Godwin, W. Hewitt, David Russell.

Gainsborough.—At a meeting of the Medical Officers of the Gainsborough Union, held at the house of Dr. Mackinder, May 1, it was resolved:—1. That the Medical Officers of this Union do form themselves into a Local Association for the purpose of co-operating with Mr. Griffin to obtain an equitable remuneration for their services. 2. That the propositions promulgated by Mr. Griffin in his circular of April 21 be approved, excepting only the manner of payment, the actual *per case* being preferred, as less liable to encroachment and misunderstanding on the part of the Guardians. 3. That all recognized operations and bad cases of Surgery and Midwifery be included in the scale of extras, which should also embrace those casualties and cases not requiring money relief. 4. That it be not in the power of the Guardians to send patients to public Hospitals in order to avoid the extra fee, except at the request of the Surgeon in whose district such patients may happen to reside. 5. That every member subscribe five shillings per quarter towards the general fund in the hands of Mr. Griffin. 6. That Dr. Mackinder be appointed Honorary Secretary and Treasurer. 7. That the thanks of this meeting be given to Mr. Griffin for his indefatigable exertions in behalf of the Union Surgeons, and a copy of these Resolutions be forwarded to the weekly Medical Journals. (Signed) D. Mackinder, M.D.; W. M. Fronsdale; A. Fairchild; James H. Williams; H. J. Waterland; J. H. Bennett, M.D.

MEDICAL NEWS.

UNIVERSITY OF OXFORD.—At the Commemoration on Wednesday, the degree of D.C.L. was conferred on Dr. Sandwith, among others.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen having undergone the necessary examinations for the Diploma, were admitted members of the College at the meeting of the Court of Examiners on the 23rd ult. :—

ANSTIE, FRANCIS EDMUND, Devizes, Wilts.
ASHURST, WILLIAM ROBERT, Beaumaris, Anglesea.
COURTNEY, SYDNEY CHARLES, Leatherhead.
CRIBB, ARTHUR JOHN, Bishops Stortford, Herts.
FRODSHAM, JOHN MILL, Upper Bedford-place.
GEORGE, JOHN WINNALL, Ivy-house, Brixton-hill.
GROOM, LEONARD, Thames Ditton.
JEPSON, GEORGE THEOPHILUS, Hampton, Middlesex.
LLEWELLYN, JOHN, Newport, Pembrokeshire.
MOSELY, BENJAMIN EPHRAIM, Grosvenor-street.
PETTINGER, GEORGE, Manchester.
SIMMS, FREDERICK, Tonbridge-place, New-road.
WHITEHEAD, JOHN GEORGE, Whitehaven.
WILLIAMS, WM., Rhiw-house, Testiniog, Merionethshire.
WROE, JOHN BIRCH, Broughton, Manchester.

APOTHECARIES' HALL. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, May 22, 1856 :—

CARR, COPLEY JABEZ, Edinburgh.
CATTLE, WILLIAM DRUCE, Kempsey, Worcestershire.
HUGOE, WILLIAM PYLLE, St. Teock, Cornwall.
TUCKER, OWEN, Army.
TUKE, JOHN HENRY, Stratton, Cornwall.

Also, on Friday, May 30, 1856 :—

GRANGER, FREDERIC WILLIAM, Bristol.
MONKS, ELISHA HODKINSON, Wigan.
ROWE, WILLIAM PALMER, Liverpool.
WORTH, EDWIN JAMES, Devonport.

APPOINTMENTS.

DR. LANKESTER, F.R.S., has been appointed one of the Examiners on Natural Science of candidates for the Civil Service of the East India Company.

EAST INDIES.—Surgeon G. M. Ogilvie, of the Bombay Medical Establishment, has been appointed Inspector of Gaols and Dispensaries in the province of Oude. Assistant-Surgeon J. C. K. Bond, of the Madras Establishment, has been appointed Civil Surgeon at Moulmein.

PROFESSOR VIRCHOW, of Wurzburg, has accepted an invitation to Berlin. He is to be Professor of Pathological Anatomy (with a chemical and physiological laboratory) and Prosector at the Charité Hospital, in which he is also to have a post as a clinical teacher. The salary is to be 2000 thalers, about £300.

PROFESSOR FRERICHS is about to succeed Professor Schönlein, the Clinical Professor at the Berlin Charité, who retires on account of ill-health and domestic afflictions.

DR. LEUBUSCHER, another Prussian *savan*, has received the appointment of Professor of Clinical Pathology at Jena.

M. ROBERT has been appointed Professor of Anatomy to the Ecole des Beaux Arts.

DEATHS.

AMUSSAT.—This celebrated Surgeon died on May 14, at his country house at Passy. One of the Surgeons in the largest practice in Paris, he was a Member of the Academie de Médécine, Chevalier of the Legion of Honour, and Associate of many foreign Academies. He had been out of health for some time past, but resisted the persuasions of his friends to relax from his active occupations.

BINET.—M. Binet, Actual President of the Academie des Sciences, died a few days since, after a short illness.

LUCAS.—May 23, at Pau, Basses Pyrenées, whither he had gone for the benefit of his health, Philip Bennett Lucas, Esq., Surgeon, of Boulogne-sur-Mer, in his 52nd year. L.R.C.S. Ireland, 1830 ; M.R.C.S. Eng. 1834; Fell. (Hon.) 1843 ; Officier de Santé, Arras, 1846 ; formerly Sen. Surg. Metrop. Free Hosp , Lect. on the Principles and Pract. of Surg. Hunt. School of Med. and Pres. of Harveian Soc. Contrib. to Med. Science : — 1. "The Distribution and Operative Surgery of the Arteries ;" 2. "The Anatomical Remembrancer ;" 3. "The Nature of Strabismus, and its Cure by Operation ;" 4. The article, "Asphyxia,;' *Cyclop. of Surg. ; 5.* "On the Successful Excision of a portion of the Tongue, to give Speech ;" 6. Contrib. on "Gonorrhœa," "Varieties of the Arteries," "Delirium Tremens," "Strabismus," "Stammering," etc.

SHARPE.—May 31, at Soho-square, in consequence of a fall from his horse, Daniel Sharpe, Esq., President of the Geological Society, in his 51st year.

WARREN.—May 4, at Boston, U.S., John C. Warren, M.D. The deceased had a name on both sides of the Atlantic, as one of the most eminent Surgeons of the age. He was Emeritus Professor of Anatomy and Surgery in Harvard College, President of the Boston Society of Natural History, a Member of the American Academy of Arts and Sciences, of the American Philosophical Society, of the Philadelphia Academy of Natural Sciences, of the Academy of Naples, and the Medical Society of Florence, an honorary member of the Medico-Chirurgical Society of London, and a corresponding member of the Royal Academy of Medicine of Paris. Dr. Warren was born in Boston, August 1st, 1778. His father, Dr. John Warren, was a distinguished Surgeon, and his predecessor as Professor of Anatomy and Surgery in Harvard College. Dr. Warren graduated at Harvard College in 1797. It is remarkable that the four most eminent scholars of that class have survived nearly sixty years after graduation. In 1806, the deceased was appointed Adjunct Professor of Anatomy and Surgery at Harvard College, and in 1815 succeeded to the full Professorship. During the past ten years the deceased had devoted himself with great zeal to the study of the natural sciences. His museum of specimens in comparative anatomy, osteology, and palæontology is regarded as one of the richest private collections in existence. It contains a very perfect skeleton of a mastodon giganteus of North America, of which he published a description in a splendid quarto volume, which was gratuitously distributed to scientific men and institutions, in our country and in Europe. Dr. Warren was a devoted and beloved Physician, a skilful Surgeon, an intelligent Medical teacher, and a public-spirited citizen.

WINTERBORN.—May 16, after many years' suffering from chronic asthma, deeply and deservedly regretted, John Winterborn, Esq., Surgeon, of Hackney-road, aged 56.

BELLIN.—May 19, at Norwich, aged 26, William Field Bellin, M.D. St. Andrew's, 1853; M.R.C.S.E. and L.S.A., 1852 ; Lic. Midw. R.C.S., 1853 ; M.S.A., 1855.

ROYAL HOSPITAL.—The Inaugural Dinner of this deserving Charity took place at the London Tavern on Thursday evening, under the presidency of Charles Dickens, Esq. The Chairman was supported by the Marquess Townshend, Lord Tenterden, Lord Raynham, M.P., Lord Alfred Paget, Dr. Reed, Sir John Boileau, and a large number of members of the Profession. The cloth having been removed, and the usual loyal toasts duly honoured, the Chairman, in proposing the toast of the evening, observed upon the sad and cheerless condition of large numbers of our population, who, necessarily debarred from the benefits of our large Hospitals by the very circumstance of the incurability of their diseases, were cast out into the wide world to battle as they might with poverty and lingering sickness—to become too often the victims of despair. He referred with great emphasis to the certificate signed by some of the most eminent Medical men in the country, as a proof that such an Institution was needed, and contended that it entered into no competition with any existing Hospital, while it did that which rendered the incompleteness of our present system complete. He said, in the hearing of many Professional men, that their hearts would be lighter if, in discharging patients as incurable, there was still a refuge and still hope. At the recent election 10 patients were elected out of 84. He closed one of the most eloquent and spirit-stirring addresses to which we have ever listened, by an earnest appeal that the infant efforts might be clothed with giant power. The amount of donations announced by Dr. Andrew Reed, the benevolent founder of this and kindred institutions, was £864.

ROYAL INSTITUTION OF GREAT BRITAIN.—At the General Monthly Meeting, held June 2, William Pole, Esq., M.A., F.R.S., Treasurer and Vice-President, in the Chair, James C. C. Bell, Esq., Consul for the Grand Duchy of Tuscany; Charles Oliver Frederick Cator, Esq.; William Crawford, Esq.; Frederick William Irby, Esq.; William Gibbs, Esq.; John Smith, Esq.; and Theodore Talbot, Esq.; were duly elected Members of the Royal Institution; and G. H. Westerman, Esq., was admitted a Member of the Royal Institution.

KING'S COLLEGE HOSPITAL.—There is at present a vacancy for two Assistant-Physicians to this Institution. We understand that Dr. Headland, who received his education in the College, and who is well known for his work on "The Action of Medicines," is a candidate for the office.

THE MIDDLESEX HOSPITAL SCHOOL OF MEDICINE.—The annual distribution of Prizes and Certificates to Students attending this School of Medicine took place on Thursday last in the Board-room of the Hospital, the Right Hon. Lord J. Russell, M.P., presiding. Mr. Shaw, Lecturer on Surgery, on behalf of himself and colleagues, read a report on the present condition of the Medical School, from which it appeared that, though the war had somewhat unsettled the number of pupils at the school for the two past years, it was never in a more flourishing state than at present. The successful candidates were then introduced to His Lordship, who handed to them the prizes and certificates which they had gained. The list is as follows:—*Medicine*—Prize: Mr. John Thomas Rouse, London. Cert.: Mr. Thomas James Cooper, Canterbury; Mr. John Tatham, Burton in Lonsdale, Yorkshire. *Surgery*—Prize: Mr. John Thomas Rouse, London. Cert.: Mr. Thomas James Cooper, Canterbury; Mr. Arthur Prince, London. *Physiology*: 1st Prize: Mr. John Tatham, Burton in Lonsdale, Yorkshire. 2nd Prize: Mr. William Brooks Poole, Canterbury. Cert.: Mr. Henry Buss, London. *Anatomy*—Prize: Mr. Arthur Prince, London. Cert.: Mr. Thomas James Cooper, Canterbury; Mr. James Barrett, Banbury, Oxon. *Practical Anatomy*—Prize: Mr. Arthur Prince, London. Cert.: Mr. Henry Buss, London. *Chemistry*—Prize: Mr. William Howells Rix, Tonbridge Wells. *Practical Chemistry*—Prize: Mr. Thomas James Cooper, Canterbury. Cert.: Mr. John Hamilton M'Kechnie. *Midwifery*—Prize: Mr. Thomas James Cooper, Canterbury. Cert.: Mr. John Tatham, Burton in Lonsdale, Yorkshire; Mr. John Thomas Rouse, London. *Materia Medica*—Prize: Mr. William Brooks Poole, Canterbury. *Forensic Medicine*—Prize for Weekly Examination: Mr. John Thomas Rouse, London. General Examination: Mr. Thomas James Cooper, Canterbury. Cert.: Mr. Arthur Prince, London. *Botany*—Prize: Mr. Edwin Baxter, Middlesborough-on-Tees. Cert.: Mr. John Little Thomas, Carmarthen; Mr. Henry Buss, London. *Prize in Clinical Medicine*—Mr. Thomas James Cooper, Canterbury. *Prize in Clinical Surgery*—Mr. John Thomas Rouse, London. *General Prize*—Mr. Thomas James Cooper, Canterbury. His Lordship concurred in the suggestion made by Mr. De Morgan, that the examinations at this school, instead of being, as at present, entirely voluntary on the part of students, ought to be made compulsory; for he believed that this would be the means of extending the benefits of the excellent education supplied at this school. The Profession of Medicine afforded the finest opportunity for the exhibition of the highest and best qualities of human nature. They had not only to devote many years to the acquisition of knowledge in the schools, but in the practice of their Profession they had to exercise a nice discrimination and judgment at the moment in determining the particular maladies they had to treat. Mere knowledge was generally a useless thing without practised skill, without the power and intelligence to apply knowledge; and in no profession was this more true than in Medicine and Surgery, where the want of practical skill was an absolute disqualification. The Medical Profession also afforded an admirable opportunity for displaying the best qualities of the heart, for exercising the excellent gift of charity in alleviating human suffering, in relieving, if not removing, the pains of sickness.

ST. MARY'S HOSPITAL.—The anniversary festival, in aid of the funds of the St. Mary's Hospital, Paddington, was celebrated by a public dinner, at the London Tavern, on Saturday, which was presided over by Raikes Currie, Esq., M.P. On this occasion the managers of the Institution found it necessary to make a special appeal to the liberality of the public, partly for the purpose of providing a larger accident ward, and partly also because the regular income of the establishment is by no means adequate to its support. St. Mary's is the only Hospital in the densely-populated and fast-increasing district in which it stands, and there is a very large population of the poorer classes. It is dependent entirely upon subscriptions, possessing as yet no accumulated property, and at present the managers are constantly obliged to refuse admission to applicants for want of accommodation. During 1855 there were 1460 in-patients, 4238 out-patients, 2873 casualties, and 402 married women attended and relieved, at their homes during confinement.

ROYAL ORTHOPÆDIC HOSPITAL.—The seventeenth anniversary of this valuable institution was celebrated on Friday last at the London Tavern, under the presidency of the Earl of Shaftesbury, when nearly 100 gentlemen sat down to dinner. After the customary loyal toasts, the noble Chairman proceeded eloquently to advocate the claims of the charity. Having pointed out the serious deformities which the institution proposed to relieve, the extraordinary means which science had found for their alleviation, and the skill with which those means were applied in the Orthopædic Hospital, His Lordship proceeded to state that the number of patients relieved during the past year had been 1,401, making the total number since the commencement 18,236. So much for the past. But what did they want for the future? They had lately removed the hospital to spacious premises in Oxford-street, to secure which they had incurred a mortgage of £6,000 at 5 per cent. To this must be added £1220 for various outlays, and for these sums they had to look only to the liberality of their friends. The noble Earl concluded with a fervent appeal to the company to support the objects of the Institution. The toast having been duly honoured, the Treasurer read the list of subscriptions, amounting to £2700; after which, Mr. Rogers gave the health of the Medical officers. Mr. Tamplin, in returning thanks, said he might mention that attached to their new premises was a piece of ground on which they might raise a building capable of accommodating 300 patients.

VACCINATION IN RELATION TO BLINDNESS.—Statistical researches show us that prior to Jenner's discovery of 100 cases of blindness, 55 were due to small-pox; and Dr. Dumont, Physician to the Hospice for the Blind, has recently supplied an interesting account of the progressive decrease of that proportion. Among the blind of sixty years of age he finds this variety of cause in 12 per cent.; in adults it only exists as 8 per cent.; and in children only as 5 per cent. We may take as a mean, counting all ages, about 7 per cent., which, as at the commencement of the present century the proportion was 35 per cent., exhibits a diminution of 28 per cent.

MORTALITY NOTABILIA—In the first week of May the deaths registered in London rose to 1154; during the following weeks they have shown a constant decrease, and in the last week of the month, which ended on Saturday, they were 1027. In the week preceding that on which the mortality rose, the mean weekly temperature had fallen to 41·3°; in three subsequent weeks it rose to 44·3°, 51·2°, and 53·1°; and last week it was 53·3.° In the corresponding weeks of the last ten years, 1846—55, the average number of deaths was 952, which, if raised in proportion to increase of population, becomes 1047.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending May 17 and 24:—

—	In the Week ending May 17.			In the Week ending May 24.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses	56	51	107	54	39	93
Prisons	..	..	..	5	..	5
Military and Naval Asylums	5	..	5	8	..	8
General Hospitals	30	16	46	30	15	45
Hospitals for Special Diseases	13	5	18	8	6	14
Lying-in Hospitals	..	..	..	..	..	..
Military and Navy Hospitals	2	..	2	5	..	5
Hospitals and Asylums for Foreigners	1	1	2	2	1	3
Lunatic Asylums	3	5	8	7	1	8
	110	78	188	119	62	181

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	1	6	3	13	4	6
North	490,396	1	8	7	3	3	17
Central ..	393,256	1	5	11	6	1	12
East.....	485,522	..	2	10	5	4	12
South	616,635	2	15	9	6	..	12
Total..	2,362,236	5	36	40	33	12	59

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, May* 31, 1856.

CAUSES OF DEATH.	In the Week ending Saturday, May 31, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature	Mean temp. 53°3						56°2
ALL CAUSES	1027	505	149	179	170	24	952·3
SPECIFIED CAUSES	1027	505	149	179	170	24	942·4
DISEASES:—							
1. Zymotic Class	220	167	17	19	13	4	211·6
2. Dropsy, Cancer, and others of uncertain seat	49	8	7	16	16	2	40·3
3. Tubercular Class	191	74	65	44	7	1	193·2
4. Of Brain, Nerves, etc. ..	142	66	11	31	33	1	114·2
5. Of Heart, etc.	59	5	8	24	19	3	39·0
6. Of Respiratory Organs ..	135	76	8	19	30	2	133·4
7. Of Digestive Organs ..	55	25	9	9	12	..	59·7
8. Of Kidneys, etc.	17	..	3	9	5	..	12·1
9. Of Uterns; viz. — Puerperal Disease, etc. ..	4	..	2	1	1	..	8·2
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	12	4	3	4	1	..	8·3
11. Of Skin, etc.	1	..	..	1	..	..	2·4
12. Malformations	2	2	..	..	..	..	4·6
13. Debility from Premature Birth, etc.	22	22	..	..	..	..	26·3
14. Atrophy	35	28	..	..	7	..	24·0
15. Age	32	..	..	..	21	11	36·[illegible]
16. Sudden	4	2	1	..	1	..	6·3
17. Violence, Privation, etc...	47	26	15	2	4	..	22·7
CAUSES NOT SPECIFIED.. ..	..	..	..	..	..	..	9·9

BOOKS RECEIVED.

Clinical Researches on Disease in India. By Charles Morehead, M.D. In Two Volumes. London : Longman and Co. 1856.

History of Medicine from its Origin to the Nineteenth Century. By P. V. Renouard, M.D. Translated from the French by Cornelius G. Comegys, M.D. London : Sampson Low and Co. 1856.

Asiatic Cholera; An Inquiry into its Nature and How to deal with it. By Robert Pairman, Surgeon. Edinburgh : Sutherland and Knox. 1856.

Nomos. London : Longman and Co. 1856.

Ismeer; or, Smyrna and its British Hospital in 1855. By A Lady. London : Madden. 1856.

The Municipal Directory for 1856. London : Kelly and Co.

The Edinburgh Medical Journal. June. 1856.

The Pharmaceutical Journal. June. 1856.

Chapman on Varicose Veins. London. Churchill. 1856.

Stromeyer, Esmarch, and Statham on Fractures of Bones, etc. London : Tatten. 1856.

TO CORRESPONDENTS.

IN consequence of the great space occupied by our Special Report of the Trial of William Palmer, we have been compelled to omit many communications of much importance, but we hope to compensate for the omission in future numbers.

We have received a copy of an engraved Portrait of Dr. Alfred Taylor, executed by Mr. Sidney Marks. The likeness is excellent, and the workmanship is of a highly finished character.

Mr. C. Otway.—The question was answered, and we believe satisfactorily, by Mr. Hey, of York, in our Number of the 26th of April of the present year.

Dubliniensis.—The London College would grant an *ad eundem* diploma. Write to Mr. Belfour, at the College.

A Subscriber.—We believe that etiquette requires that the older practitioners should call upon the new comer.

Mr. H. H. Watson's paper on the Tests for Strychnia and Brucia will appear next week.

Mr. John Pennkard.—Application should be made to the Committee of Bethlehem Hospital.

Medico-Chirurgus.—The lists of the College of Surgeons were discontinued only in consequence of the want of courtesy on the part of the officials of the College in neglecting to forward the names to our Office. We do not think it right, on principle, to bribe the officials, and we now copy the lists from the daily Journals, and are not responsible for any errors which they may contain. The Lists of the Royal College of Physicians, the Apothecaries' Hall, the Scotch and Irish Colleges and Halls, and of nearly all other of our Examining Bodies, are regularly sent to us.

Dr. Laycock's Lecture has been received, and will shortly appear.

Mr. George Shaw, of Durham, asks us the following questions :—Which is the best Workhouse, *i. e.*, which is best constructed for preserving the general health, etc. of the inmates? Which reformatory for juvenile criminals is best arranged, in a sanitary and Medical point of view?

Mr. Nunneley, of Leeds.—We have received an extract from a Provincial newspaper, containing two letters from Mr. Nunneley, one to the Editor of that Journal and another to the Attorney-General, on the subject of the late trial at the Central Criminal Court. We shall be happy to publish any original communication from Mr. Nunneley, but we cannot undertake to publish letters which have already appeared.

Mr. Toynbee's Second Lecture will certainly appear next week.

We have received some specimens of an Elastic Non-Irritating Adhesive Plaister, introduced to notice by Mr. B. Nickels. The elasticity of this Plaister enables it to adapt itself to all irregularities of surface, and it is superior in adhesive power to the ordinary article in use by the Profession.

Tyro.—Chloroform is occasionally employed with benefit to allay vomiting or to soothe pain. The dose is from one to two minims given in the fluid state, mixed up with mucilage of acacia.

We have received numerous communications on the subject of the late poisoning case at Rugeley; we cannot, however, insert any but original articles, accompanied by the names of the authors.

COMMUNICATIONS have been received from—

Mr. R. GRIFFIN ; Mr. T. H. HUXLEY ; Dr. HYDE SALTER ; Mr. B. TRAVERS, jun. ; Mr. THOMAS WINDSOR ; THE GEOLOGICAL SOCIETY ; Dr. WALTER FERGUS ; Messrs. KELLY AND CO. ; A SUBSCRIBER ; Dr. SIEVEKING ; Dr. GARRETT ; Mr. W. ADAMS ; Dr. W. H. ASHLEY ; Mr. S. F. STATHAM ; THE COUNCIL AND PROFESSORS OF THE LONDON HOSPITAL MEDICAL COLLEGE ; Mr. J. F. SANGER ; MATTHEWS ; TYRO ; Mr. NUNNELEY ; Mr. DAVID RUSSELL ; H. J. ; Mr. LORD ; Dr. LANKESTER ; SECRETARY OF ROYAL INSTITUTION ; DERMOS ; MEDICAL OFFICERS OF GAINSBOROUGH UNION ; Dr. PINCOFF, CONSTANTINOPLE ; Dr. HENRY MCCORMAC.

APPOINTMENTS FOR THE WEEK.

JUNE 7. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m. ; St. Thomas's, 1 p.m. ; Westminster, 1 p.m. ; King's, 2 p.m. ; Charing Cross, 1 p.m.

MEDICAL SOCIETY OF LONDON, 8 p.m.

ROYAL BOTANIC SOCIETY, 3¾ p.m.

9. *Monday.*

Operations at the Royal Free Hospital, 1 p.m. ; Metropolitan Free Hospital, 2 p.m.

10. *Tuesday.*

Operations at Guy's, 1 p.m.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m. : T. A. Malone, Esq., "On Photography."

ZOOLOGICAL SOCIETY, 9 p.m.

11. *Wednesday.*

Operations at University College Hospital, 2 p.m. ; St. Mary's, 1 p.m.

LITERARY FUND, 3 p.m.

ROYAL SOCIETY OF LITERATURE, 4½ p.m.

12. *Thursday.*

Operations at St. George's, 1 p.m. ; Middlesex, 12½ p.m. ; Central London Ophthalmic, 1 p.m.

ROYAL SOCIETY, 8½ p.m.

ROYAL INSTITUTION, 3 p.m. : Professor Tyndall "On Light."

13. *Friday.*

Operations at the London, 1½ p.m. ; Moorfields Ophthalmic, 10 a.m. ; Westminster Ophthalmic, 1½ p.m.

ROYAL INSTITUTION, 8½ p.m. : Professor Faraday "On some Points in the Molecular Philosophy of Gold and Silver ; M. Petitjean's Silvering Process.

ASTRONOMICAL SOCIETY, 8 p.m.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON
A VESICULAR DISEASE CONTRACTED FROM SHEEP.

DELIVERED AT

St. Bartholomew's Hospital,

By GEORGE BURROWS, M.D., F.R.S.

I THINK, gentlemen, you are well aware that whenever an opportunity offers, I prefer taking for clinical lecture a series of cases which will illustrate some particular disease. This is my object generally, by preference; but when such a series of cases does not present itself in the wards, then I endeavour to select some case of great rarity, or of great severity, the study of which may possibly enlarge your knowledge of disease in general. It will be to a case of this latter description that I shall particularly invite your attention this morning.

There is, as you know, a large and very important class of diseases depending upon the introduction of an animal poison into the system; and one striking feature of all such diseases is the appearance of an eruption upon the skin, accompanied with a peculiar kind of constitutional disturbance or distress. The animal poisons which are capable of producing such diseases are various; and these poisons are sometimes generated by human beings, and sometimes by the lower animals. The modes by which the animal poison may be introduced into the human system are also various. It may be introduced artificially or accidentally, sometimes into the blood-vessels, and sometimes into the tissue of an animal; and the same poison may be introduced by the process of inoculation. I say the poison may be introduced in various ways: it may be in a direct manner, the poison being taken from one animal, and introduced either into the blood-vessels or into the tissue of another animal, by a process which we call *inoculation;* and at other times it would seem that the poison is merely conveyed from the surface of the diseased animal to that of the healthy person by contact—what we commonly call *contagion.* Or this animal poison may be of a volatile nature: it may be susceptible of solution or suspension in the atmosphere, and may emanate from the sick either by the breath, or by cutaneous exhalation, or by effluvia from alvine and other secretions: and thus it may affect those who come within certain range either of the sick man or diseased animal.

All these diseases arising from animal poisons, and propagated either through inoculation, or contagion, or infection, appear to be subject to certain general laws; and to these, perhaps, I may as well advert before I bring under your notice a very remarkable case of disease resulting from the introduction of an animal poison by means of inoculation. The poison in the case to which I allude was derived from the skin or from the other parts of a sheep's head, and introduced into the system by means of a butcher's knife. The general laws to which I have just alluded as governing those diseases dependent upon animal poisons, are more especially applicable, of course, to those poisons which are generated within the human body; although if we had greater knowledge of the diseases which result from poisons generated within the bodies of brutes, the same or analogous laws would probably be found to hold good also in them.

First, then, with respect to these laws relating to animal poisons, we observe that each peculiar poison has the power of exciting certain definite and specific actions when introduced into a healthy organization. And, secondly, there appears to be a period of latency, a period of incubation in the system (varying in different poisons) before the specific morbid actions are set up in the healthy system into which the poison has been introduced. And, thirdly, we observe that the specific morbid effects resulting from the introduction of the animal poison vary somewhat in different individuals, apparently varying according to the intensity of the poison—the dose of the poison, I may term it, imbibed, and the predisposition of the individual infected. Now, these laws to which I have thus adverted are particularly exemplified in cases of variola and rubeola, scarlatina, and typhus, according as these diseases occur sporadically or in the course of epidemics. Each of these animal poisons is productive of certain definite local morbid actions, which are not accidental, but governed by certain laws. Some of these poisons, we observe, excite a specific morbid action upon one membrane or organ, or upon one system of organs; others appear to excite specific morbid actions upon two membranes or organs, and others, perhaps, upon three. Now, these observations more especially refer to those animal poisons which are generated by human beings, and which are capable of being transmitted into the system of other human beings who are previously in a state of health. But the animal poisons which are generated by brutes, and which may be introduced into the system, and are capable of producing particular diseases—these are probably governed by analogous laws. For example, in that disease of this class with which we are most familiar, namely, vaccinia, or cow-pox—the disease which is introduced into the human system from the cow—these laws to which I have adverted are most evident; again, in that disease which is contracted by man from the horse, the glanders, a certain train of specific morbid actions is observed; and, also, in that more rare disease to which butchers are subject when they wound themselves in slaughtering oxen in a diseased state; and in the disease sometimes called malignant pustule, certain definite morbid actions also ensue.

Now, after these preliminary observations, I am about to describe a peculiar disease, which I believe to be derived from the sheep,—a disease, as far as I know, not hitherto described or adverted to by systematic writers. I have myself only seen two examples of this disease: they both occurred in young butchers, who had wounded themselves while cutting up sheep's heads, or dressing them for sale. The disease consists essentially of an abundant eruption of successive crops of vesicles and bullæ, of various sizes. These vesicles and bullæ are in some parts isolated from each other, and in other parts more numerous, and congregated together,—what we call confluent. These vesicles and bullæ appear principally upon the finer and more delicate portions of the skin and body, about the cheeks, the lips, beneath the chin, on the throat, the breast, upon the upper and lower extremities. These vesicles, or bullæ, however, are not confined simply to the cutaneous surface; they are found also upon the conjunctiva, upon the mucous membrane covering the tongue, the membrane lining the lips, upon the soft palate, and perhaps, also, similar vesicles might be found on the lining membrane of the nostrils and of the pharynx. During the continuance of the disease, a discharge of mucus exudes from these parts, the nostrils and pharynx. The external appearance of this eruption generally resembles that of acute pemphigus, but not altogether; for we observe, that in some parts this vesicular eruption resembles the aggravated form of herpes, the vesicles being small and congregated together, with inflamed margins. In other parts, the vesicles are larger, and isolated, the eruption more closely resembling pemphigus; in other parts, the surface appears blistered, as by the action of boiling water. The whole of the cuticle of a certain portion one of the extremities, (for example) is raised in continuous blisters, running into one another, as if the surface had been irritated by the action of boiling water.

This is the general character of the eruption of the peculiar disease in question. Now, I will proceed to detail the symptoms of the particular case to which I have adverted.

On the 8th of April, there was admitted into Matthew ward, a young man named Charles Handsdale. The following is the account which he gave of himself:—

"He is a single man, in good circumstances, of healthy parents, living at Barnet. He states that five weeks ago, while cutting a fresh sheep's head, the knife slipped and cut his left thumb. He remembers the sheep's lung was full of "white knobs;" but he remained perfectly well (with the exception of the thumb being incised, and subsequently discharging), till Saturday, April 5, without any symptoms of fever. He then noticed a spot upon his lip, which he states was like a scald; then a discharge from the eyes came on, but no headache and no shivering; and these spots gradually increased about his face and hands, till the disease had the appearance that it presented on admission." On April 8, when admitted, his condition was as follows:—

"On his face, more especially about the chin, was a crop of small bullæ about the size of split peas. There were also similar spots on the mucous lining of the lip, as well as on the edge of the tongue, and on the soft palate and uvula. There was also a purulent discharge from the left eyelids. On the back of the hands there were some red elevated spots commencing to be papular. There were also about his abdomen and back and the upper part of his thighs many red elevated spots."

When I saw him on the following morning, his expression was anxious; face flushed; eyes suffused; accompanied with a purulent discharge from the inner canthus of the left eye and the outer canthus of the right. There was also a purulent discharge from the right nostril. Lips dry. About his face, below the chin, there was an abundant crop of bullæ, which to-day seem to be of a more pustular character. They are also increased in size, some being larger than a fourpenny-piece. Around each of the bullæ the cutis seemed inflamed. A few were now observed on the hairy scalp. The eruption was seen about the hands, around the wrists, extending up the inner aspect of the forearms. A similar eruption was also detected in each iliac region, the inner aspect of the thighs, upon the scrotum, upon the penis, and upon the back of the trunk; also upon each foot, about the ankle, and along the tarsus. Some of these bullæ were very minute, and others larger, about the size of split peas. As I have already said, the eruption was confined to the finer parts of the skin; in those parts where the cuticle was thickened,—on the outer aspect of the arm and thigh, the palms of the hands and soles of the feet,—this vesicular eruption was absent. The wound in the thumb was open, and discharging. The constitutional disturbance was much less than might have been expected to accompany such an extensive eruption. He was evidently a youth of great courage, and made light of his pains. His breathing was easy. There was slight cough and sore throat. Skin hot and dry. Tongue coated on the dorsum with a thickish white fur, the edges presenting an appearance of having small pimples upon them. Has a tolerable appetite; is not sick; no headache, and no thirst; bowels not open; urine free.

Now, I shall not pursue this case day by day, through its progress, but I will read you the note of the day after his admission, and then I will tell you generally the progress of the case for the ensuing fortnight. We found on the following morning that he had slept but little in consequence of the discharge from his eyes, which had been constant all night. His expression was anxious. He was lying on his back, with his mouth open. Lips and teeth dry. On the internal lining of the lower lip we observed a number of these minute vesicles, and some were to be seen on the soft palate, which had the appearance of being covered with patches of slough. About his face there were numerous bullæ, especially below the chin, and these had now begun to desiccate. About the upper extremities—on the inner aspect where the skin was soft—there was an appearance of these bullæ and vesicles, they were so numerous and congregated so closely together as to have become completely confluent. You could have fancied that the skin had been scalded with boiling water. About the thorax also the spots were more numerous, some of them containing fluid, which on the previous day they did not contain. They were more numerous about the trunk, about the axillæ and back, and in the iliac regions, the groins, the inner aspect of the thigh, and over the scrotum. Some of them were ruptured, and a copious discharge was taking place from the surfaces. The eruption was more abundant also over the lower extremities, ankle-joints, and over the footsteps. The constitutional disturbance was greater than on the previous day. He had a very restless night, having been kept awake by the discharge from the eyes, and a soreness over the surface of the body. The pulse was accelerated—108—small and sharp, but compressible. The dorsum of the tongue was still covered with fur. His appetite began to fail. He stated that he was very thirsty, but had no headache. The bowels were opened once in the morning, the motion being confined. Urine free. He complained of some sore throat. There was slight cough and scanty mucous expectoration.

Such was the condition on the second day. The disease was obviously a very peculiar one, such as is not usually presented to our notice in this Hospital, or, I believe, elsewhere. The moment I saw this young man I recognized a disease which had been under my notice about two years ago. In the month of March, 1854, a young man named George Richardson, about the same age as this patient, was admitted into John ward, and he presented over the surface of his body an eruption of a precisely similar character to the one I have just described. I learned, on inquiring into his history, that he was employed as a shopman at a butcher's, and had been engaged in skinning, cutting-up, and dressing sheep's-heads for sale, and that he had wounded himself. An eruption succeeded, and he came into the Hospital at a more advanced stage of the disease, remaining there about a fortnight. He gradually sank, and died, worn out by the continual irritation, and the copious discharge from the surface. The body was not examined. From the moment I saw the present case I recognized it as a fellow-case to that which fell under my observation two years ago. Now, the question arose in my mind, how this disease was to be treated.

Before I speak of the plan of treatment that was adopted, I may advert to an observation which has been frequently made before with reference to the treatment of constitutional diseases, and particularly such diseases as are dependent upon the introduction of animal poisons. It was quite clear that no one specific remedy was likely to stop the progress of the disease. There was every reason to believe that the blood was already infected, and we could no more expect to stop this disease than we could expect to stop a fever. It has been often said, that a Physician, in the treatment of fever ought to be guided by the same principles as the pilot in steering a ship through a storm. It is not in the pilot's power to arrest the progress of the storm, but he may from his knowledge of the latitude in which the ship is placed, of the character of the storms which prevail in that latitude, of the circuit or course which they take, of the currents of the ocean, the tides and so on, he may, by consulting his barometer and his compass, be able to steer his ship safely through the storm. So also the Physician, seeing his patient already in an advanced stage of fever, or already affected by fever, or by an animal poison, cannot stop the progress of the disease so engendered; but knowing the specific morbid actions which are likely to be induced, or which are usually induced, by that poison, his attention is drawn to particular parts of the system, and with that foreknowledge he may safely guide his patient through the fever. So it appeared to me that this principle was applicable to the case under our consideration. Our object, therefore, in the treatment of the case, was first of all, if possible, to allay the extreme cutaneous irritation, to procure a sufficient amount of rest and sleep to the patient, to sustain the nutrition of the system, and uphold the vital powers, while he was suffering from the effects of the poison. This latter was a most essential point; because we observe, with respect to these animal poisons they seem to have but a definite influence; and if the system can but be sustained—if the affections of particular organs can but be controlled during a certain period of time, the effect of the poison appears to wear out, and we find our patients reach convalescence; therefore it was a main object to maintain the nutrition of the system and uphold the vital powers, and then afterwards to employ such remedies as experience has proved to be useful in counteracting the processes of destruction, such as suppuration or cachectic ulceration. Our first object was to allay the cutaneous irritation and procure rest; and having this object in view we directed the surface of the body, wherever it was attacked with this peculiar eruption, and where the vesicles had broken and begun to discharge, to be freely sprinkled with fine hair or starch powder. This powder, of course, combining with the discharge

from the ruptured vesicles, formed an artificial crust, and protected the integuments from further irritation and abrasion. Great comfort was experienced from this remedy. The irritation was allayed, and the patient was rendered less susceptible to it by administering a sedative—Dover's powder—at night. And with respect to the condition of the mouth and throat, of which he complained in consequence of the vesicles on the mucous membrane, lips, tongue, soft palate, and fauces, we directed the parts to be washed with a lotion of borax and honey, largely diluted with warm water. These were the local means to allay the irritation I have alluded to. Then he was sustained and nourished by a liberal allowance of beef-tea, milk, arrowroot, and two or three glasses of port wine daily. His vital powers were also sustained by a combination of liquor cinchonæ, fifteen minims every four hours, with fifteen grains of chlorate of potash. It may be asked, "Why did you employ this salt in combination with cinchona?" The object of the bark was obvious; it was given as a tonic to sustain the vital powers; but why was chlorate of potash combined with it? Not from any experience I had of its use in the treatment of this disease, but as you are probably aware, this salt has been very largely employed and with very great success, in the treatment of that peculiar disease which is termed cancrum oris, that destructive ulceration which takes place in the mouths of young children when in a state of cachexia; also in other diseases which are accompanied with cachectic ulceration, as in advanced disease of the heart, where the ulcerative process takes place; and also in angina maligna. This led me to employ the salt in the present case. It produced a good result. The disease, it is true, as far as the eruption was concerned, continued, and fresh bullæ appeared for sixteen days after his admission, making in all, including four days prior to admission, about three weeks. But after that no fresh bullæ made their appearance. As long as the vesicles and bullæ were bursting forth, the same kind of constitutional disturbance existed as I have already announced to you from the clinical clerk's report. If we may believe the lad's statement, the eruption appeared first of all on the lip, then upon his cheek, then upon the conjunctiva, and subsequently about the chin, the soft parts of the throat, then extending to the chest, the upper arms, and lastly to the lower extremities. In that respect it followed very much the order of many eruptive disorders, but as the vesicles and bullæ re-appeared from time to time, they did not subsequently follow such regular order. The vesicles were clear and transparent for two or three days; the fluid in them then became opaque, and they began to shrivel, or they burst if subjected to pressure or friction. They left sores or crusts, which were gradually detached, leaving red spots behind. At the end of three weeks no fresh ones made their appearance. I will read you the note of his condition at the end of this period:—

"Had a quiet night. Says he did not sleep much. There are three fresh small bullæ on the left ear. The face generally appears much clearer, and the spots on the back are healing. Eyes still suffused and discharging. Pulse 80, rather small and soft; no sharpness. Tongue moist and nearly clean. Has not much thirst. Appetite very good. Mouth still sore. Bowels open."

He was ordered to take eggs for his breakfast, and mutton chop for his dinner, and to continue to use the mixture I have mentioned. At the expiration of another week the scabs had fallen off, and he derived great comfort from the use of warm baths, which seemed to accelerate the separation of the scabs. At the present time the lad is restored to health. Of course, he is emaciated, pallid, exhausted; but the disease as a disease has entirely ceased.

This disorder, as I have told you, is an undescribed disorder. In its general characters it very much resembles acute pemphigus, but it differs apparently from it in the circumstance that we have vesicles mixed with bullæ. It is not either the one or the other, but the two are combined in the same case. It further seems to differ from pemphigus, inasmuch as the mucous membranes of the eye, the nostrils, the mouth, the tongue, the pharynx, all are implicated at the same time. This is the case which I have thought it worth while to bring under your notice to-day, because it gives me an opportunity of making these remarks upon the peculiar characteristics of diseases caused by the introduction of animal poisons.

A COURSE OF LECTURES

ON THE

NATURE AND TREATMENT OF THE DISEASES OF THE EAR.

DELIVERED AT

St. Mary's Hospital Medical School.

By JOSEPH TOYNBEE, F.R.S.

Aural Surgeon to the Hospital, and Consulting Aural Surgeon to the Asylum for the Deaf and Dumb.

(Reported by JAMES HINTON, Esq.)

Lecture II.

EXTERNAL EAR.

Anatomical Observations.—The external ear is not unfrequently described as a portion of the external auditory meatus. There are, however, peculiarities in the structure, functions, and diseases of these two divisions of the ear, that render it desirable for them to be considered separately. The external ear, comprising, under that name, all the part of the organ external to the meatus, is placed between the articulation of the lower jaw, and the mastoid process, and it consists of a basis of resilient cartilage, covered by common integuments, the two being connected by firm cellular tissue. On the outer surface of the ear the integuments are so firmly attached to the cartilage, that it is difficult to draw them apart, or even to move the one upon the other; the skin of the ear is abundantly supplied by bloodvessels; a dried specimen I possess injected with size and vermilion, at first sight has the appearance of a mass of colouring matter, which, upon minute examination, is found to depend upon its vessels, which form a very dense network throughout every part. The lobule of the ear consists of a fold of integuments, which contains cellular tissue and a small quantity of adipose matter. The cartilage presents externally several depressions and elevations; it forms the concha, the large concavity looking obliquely outwards and forwards, and which is bounded in front by the triangular projection the tragus, which looks obliquely inwards and backwards, facing the concha. Posterior, and slightly inferior, to the tragus, is the antitragus; extending upwards from it is the antihelix, which forms the rounded curved projection of the outer ear, and which divides above and in front into two branches: the anterior is the more prominent, and terminates under the helix, by which it is concealed; the posterior branch is very rounded, and seems as if it were the continuation of the antihelix. Between the two branches is a fossa, called the fossa innominata, or the fossa of the antihelix. The helix is the curved ridge which forms the posterior and superior boundary to the ear; it commences in the cavity of the concha, which it divides into two parts, the inferior being the larger; it passes obliquely forwards and upwards above the tragus, then, curving backwards and downwards, it is continuous inferiorly with the lobule. Above the tragus, the helix usually consists of a flat band of cartilage, the inner surface being applied against the anterior branch of the antihelix, and the superior part of the concha. This arrangement of the helix screens a portion of the integuments beneath it from view, and from the contact of the air; and it is this portion which ought to be carefully cleansed and dried, especially in children. In some persons the helix is absent, and in certain cases of malformation there is no cartilage in the external ear.

Opposite opinions have been entertained respecting the influence of the external ear upon the hearing power. Itard denied that it was of any use, while others have considered that it is of very material service in collecting the sonorous

vibrations, and in conducting them to the meatus. Richcrand says, that the external ear may be removed without deafness being the consequence :—"For a few days after the loss, the hearing is rather hard, but the infirmity gradually diminishes, the increased sensibility of the auditory nerve compensating for the imperfection of the organic apparatus." Dr. Hennen cites a case that he met with, in which the external ear was completely removed by a cannon-shot, and yet the sense of hearing was as acute as ever. Wepfer relates a case in which the outer ear was destroyed by ulceration, but the hearing power was not diminished. Itard, on the contrary, says :—"Every thing combines to show that the auricle is absolutely useless in man ; that the hearing is not altered when it is removed, I have had occasion to assure myself most positively." —"Traitè des Maladies de l'Oreille. T. I. 1821." He owns, however, that this opinion has been opposed by various anatomists, among whom may be cited Valsalva and Haller, who state positively, that although the loss of the outer ear does not produce deafness, it is always accompanied by a diminution of the hearing power. Leschevin also states, that those who have lost the external ear, or have it naturally too flat or ill-shaped, have the hearing less acute. ("Cooper's Surgical Dict. 7th Ed. P. 469.")

An examination of the details of the cases from which deductions have been drawn respecting the functions of the external ear shows, that experiments sufficiently careful to decide the question were not performed ; in those instances in which a diminished power of hearing was detected the condition of the other parts of the organ is not recorded ; in the patients described as hearing perfectly no accurate test of the hearing power was employed, nor does it appear that sufficient care was taken to ascertain whether the supposed perfect hearing depended upon the organ that remained unmutilated. I am, therefore, happy that it is in my power to place before you a case in which these particulars were carefully observed.

W. B., a sailor, aged 33. The whole of the upper portion of the left auricle is absent. The antitragus remains, and a portion of the tragus about equal to it in size; below these the remnant of the lobe slopes gradually down to the side of the neck. He states that his ear was bitten off by another sailor at one of the Navigator Islands ; but the state of the parts rather indicates a careful removal by a cutting instrument. Each meatus contained cerumen, after the removal of which by the syringe he heard the watch equally well with each ear, at a distance of 2 feet (a).

Pathological Observations.—The two classes of disease of the external ear for which the assistance of the Surgeon is sought, are, First :—Malformations ; and, secondly, various kinds of inflammation; to these may be added cases of cysts and tumours, which are, however, of comparative rarity.

I. *Malformations of the External Ear* generally co-exist with a partial or an entire absence of the external meatus ; but as the state of the outer ear generally attracts attention first, I shall consider the two conditions together in this place. Sometimes the tragus is pressed backwards and inwards so as to close the meatus ; the remedy in such a case is either for the patient to wear habitually a small silver tube, or a portion of the tragus may be excised. A much more serious malformation of the ear, and unfortunately one that is not uncommon, consists in the absence of the cartilage of the external ear together with the external meatus, the only representative of these parts being one or more soft and shapeless duplications of the integuments ; sometimes, indeed, there is no vestige of either meatus or auricle.

The attention of the Surgeon is called to cases of malformation of the external ear, to give an opinion in the case of infants newly born respecting the amount of hearing they are likely to possess ; when children with this affection grow up, and having a certain degree of hearing, to decide whether an operation is likely to be of any benefit, and, lastly, to do as much as possible to diminish the deformity to which the partial absence of the external ear gives origin.

A case is cited by Mr. S. Cooper (*loc. cit.* p. 470) of a child he saw, when it was exhibited in London as a curiosity, which was wholly destitute of external ears, and in whom there were no meatus auditorii visible. This child, nevertheless, "could hear a great deal, although the sense was certainly dull and imperfect." No careful investigation seems to have been made of this case, and it is not stated whether the presence of any meatus auditorii could be detected through the integuments. Judging from somewhat analogous cases to be cited hereafter, it is most probable that the meatus were entirely absent.

Fritelli and Overteuffer are also quoted by Cooper as having seen cases in which the outer ear was entirely absent. The former says that the physiognomy of the child resembled that of an ape, and the latter states that his patient heard very well. In some instances the auricle is deformed without any abnormal condition of the meatus or tympanum ; but, as a general rule, malformation of the external ear is accompanied by a defective development of the meatus and tympanic cavity.

This subject has been examined with care by Professor Allen Thomson, who published a notice of several cases of malformation of the external ear, and of experiments on the state of hearing in such persons, in the *Edinburgh Journal of Medical Science* for April, 1847, to which is appended an account of the dissection of a similar case of malformation by myself. It appears that there are upon record only three dissections similar to those now under consideration ; of these, one is described by Professor Jaeger, of Erlangen, one is in the Museum of the University of Edinburgh, and the third was made by myself. In the first two instances one ear only was affected. "In both," quoting Dr. Thomson, "the labyrinth appears to be quite naturally formed, the cavity of the tympanum and the bony Eustachian tube exist, but are much smaller than usual. The chain of ossicula differs materially from the natural structure, being united, in one of the examples, into one straight and simple piece, and consequently assuming very much the form and appearance of the columella of birds or reptiles. The most striking departure from the normal form of the bone consists in the entire obliteration of the meatus externus, which seems to be connected with the absence of that portion of the temporal bone which forms the tympanic ring and lower side of the bony canal of the meatus, and the extension backwards of the articular or true glenoid portion of the temporal bone to twice its natural breadth. There is a total deficiency, therefore, of what may be termed the tympanic bone, or of that which forms the posterior, non-articular part of the glenoid cavity of the temporal bone, intervening between the fissure of Glaser and the vaginal ridge of the spinous process. Were this part of the bone merely deficient, the cavity of the tympanum would be left freely open below ; but in the two bones now described, it seems to be closed by the unusual extension of the glenoid or articular portion of the bone backwards." In reviewing the cases recorded by him, and comparing them with the results of dissection, Dr. Thomson arrives at the conclusion that the following are the most prominent points of deviation from the natural form and structure :—"1st. An incomplete development of the integumental part of the apparatus, viz., the external auricle, and outer part of the meatus. 2nd. The absence of the membrana tympani, tympanic ring, and bony part of the meatus, in consequence of the incomplete development of the tympanic bone, or a part of the structure which, in the lower animals, bears that name. 3rd. The defective state of the cavity of the tympanum and chain of small bones. 4th. Occasionally irregularity or deficiency in the development of the malar, palatal, and maxillary portions of the face." My own dissection was laid before the Pathological Society in 1847 : both ears were equally affected. The external ear consists of a fold of integument, having much the same shape and size as the natural lobe, but it is directed forwards, so that the concave surface, which usually looks outwards, is directly applied to the surface of the head, and conceals the tragus, which is rather smaller than natural. There are two orifices on the upper part of the anterior surface of the appendage, and one at its posterior part; these are the openings of mucous follicles. The meatus externus is entirely absent, a slight depression in the integuments is the only indication of its natural position. Upon removal of the integuments no meatus or membrana tympani was discovered ; but in their place is a flat surface of bone which presents two fissures, one very narrow and having a direction forwards, and a second three or four lines in length, and from half to three quarters of a line in

(a) This is the distance at which my watch is usually heard by the healthy ear, and may be considered as indicating an average amount of hearing power.

breadth, which commences at the anterior and inferior part of the other fissure, and has a direction downwards and slightly backwards. This fissure is covered by a membrane. The whole of the tympanic ring is absent, so that the mastoid and squamous portions of the temporal bone are only parted by these fissures, the lower of which seems to represent the Glaserian fissure, and the external meatus united into one.

The membrane by which the fissure is covered appears to be the analogue of the membrana tympani. The zygomatic process of the temporal bone is represented by a small osseous layer developed in the middle of a ligament which extends from the external part of the squamous portion to the orbit; the molar bone is absent, the external part of the orbital circle being formed by a ligament connecting the superior maxillary and frontal bones.

Upon removing the membrane covering the fissure above described, a cavity was observed lined by mucous membrane; this is evidently the cavity of the tympanum, but very much smaller than natural, so as itself to appear somewhat like a fissure in the substance of the bone. It measures two lines in its vertical diameter, two lines and a-half from above downwards, and about half a line from without inwards. This cavity contains two bones, which are the analogues of the malleus and the stapes. The former consists of a narrow process directed upwards, and a globular body below, from which a process is directed inwards, bnt it has no connexion with the stapes, to which it is superior. The stapes, in place of its two crura, has a process about three-fourths of a line in length, flattened above and below; to the inner extremity the base is attached, which is firmly fixed in the fenestra ovalis; the outer extremity is slightly attenuated, and does not present any articulating surface. Above the stapes, and having a direction from above downwards and backwards is the portio dura nerve, which is not surrounded by bone, but is in contact with the mucous membrane of the tympanum. The tensor tympani muscle is in a natural state, as also is the Eustachian tube, which opens into the anterior part of the tympanic cavity. The stapedius muscle is absent. The auditory nerve, the cochlea, vestibule, and semicircular canals appear to be healthy in every respect.

The healthy state of the labyrinth leads the Surgeon to expect that patients suffering from this deformity would hear some sounds; but, considering the absence of the ear, meatus, and membrana tympani, and the imperfect state of the tympanic cavity, the comparatively large amount of hearing enjoyed must be a source of surprise. In the following case there is every reason to suppose that the condition of the ears was similar to that detailed in the above dissection, and yet the power of hearing was much more acute than in many cases in which the ear is perfectly developed; but there exists some thickening of the part of the apparatus essential to hearing.

Case 1.—*Congenital malformation of both external ears, and absence of the Meatus Auditorii.* Miss A. J., aged 22. Consulted me in 1851, on the recommendation of Dr. Theophilus Thompson. On examination a very small fold of integument in which was a delicate portion of cartilage, represented each external ear. The only vestige of the meatus auditorii was a very slight depression on each side, at the floor of which firm bone was felt. She heard the voice perfectly when spoken to loudly within a foot of the head, and best when the voice is directed towards the vertex of the head. She has a slight impediment in her speech, and her face is short and square shaped; the zygomatic process appears to be undeveloped. When she attempts a forcible expiration with closed nostrils she feels a sensation of pressure in both ears; does not hear so well during a cold. Three months previously a Surgeon had made a crucial incision over the depression in the left ear, but no meatus auditorius was found. The patient thought she heard slightly better while the surface was kept open, but it was found impossible to prevent it from healing. I advised that no further operation should be performed, and that she should be content with the amount of hearing she possessed. She died about two years afterwards, but it was found impracticable to conduct a post-mortem inspection.

In some instances there has evidently been a co-existent abnormal development of the labyrinth, and the patients have been wholly deaf from birth; it is gratifying, however, for the Surgeon to be able to assure the friends of infants respecting whom he may be consulted, that as a general rule there is a sufficient development of the organ for educational purposes, and for the ordinary intercouse of life. Thus one of the cases seen by Dr. Allen Thomson was a boy who went on messages for his father, a butcher; he could join in the conversation of those with whom he was intimate, and even a stranger could communicate with him by employing slow, distinct, and somewhat loud articulation. A girl who was possessed of only a moderate share of intelligence, partly from weakness and partly from her imperfect hearing, nevertheless understood what was said to her when it was spoken slowly and distinctly, and she always answered by speech. Attempts to improve the hearing in cases similar to those under consideration by means of operations, have invariably been unsuccessful; first because as a rule there is an entire absence of meatus and membrana tympani; and, secondly, because it has been found impossible to keep the aperture in the integuments from closing. In most of the cases of deformity of the external ear and meatus there has also been observed a peculiar square shape of the face, the lower jaw being very short, and there is not unfrequently an imperfection in the speech and deglutition. Thus in an infant, a month old, seen in consultation with Mr. Roberts, of St. John's Wood, in 1853, the meatus auditorii being entirely absent and the auricles only partially developed, the chin receded much more than natural, and there was a not unfrequent regurgitation through the nose of the contents of the stomach during eructation.

Supernumerary Ears.—Cases have been recorded in which more than two ears have existed. Mr. Wilde says, that Cassebohm relates the case of a child with four ears, two naturally placed, and two lower down on the neck; in this instance there were two petrous portions to each temporal bone.

II. *Inflammations of the External Ear.*

The two kinds of inflammation to which the auricle is subject, are erysipelas and eczema.

Chronic Erysipelas.—It is not requisite for me in this place to speak of the acute form of erysipelas, as in its nature and treatment it does not differ from the same disease attacking other parts of the body. The chronic form of erysipelas deserves attention on account of its frequency, the discomfort it produces, and its very tedious character. It sometimes originates in the acute form of the disease, and often remains for many years. By degrees the auricle becomes hypertrophied and hardened, the meatus not unfrequently closed, and the ear loses its natural form, its surface being exceedingly tender. This affection generally occurs in females beyond the middle period of life.

Case 2.—C. F., aged 49, admitted under my care at the St. George's and St. James's Dispensary, in 1849. She complains of much tenderness in both external ears, which upon examination are observed to be red and very much thickened; the integument and subjacent cellular tissue of the right ear are so hardened that the auricle scarcely presents the general form of the natural organ.

The patient's health was much deranged. A solution of nitrate of silver, 2 grains to the ounce, was applied to the ear, and mild preparations of steel were administered. Under this treatment the tenderness of the ear greatly diminished.

Chronic Eczema, like chronic erysipelas, is most frequently found in females beyond 40 years of age, and in whom there is some constitutional debility; it is, however, not uncommonly met with in children. It is generally accompanied by extreme irritation of the auricle, which is of a deep-red colour, and often very smooth and shining. Scales of epidermis are seen adhering to some parts, and from others a thin discharge exudes. In some cases, especially in adults, the dermis is hypertrophied, and the auricle loses its natural aspect. If neglected it is liable to extend into the meatus, the dermoid layer of which also becomes red and sensitive, and sometimes tumefied, although not unfrequently no tumefaction is apparent; the dermoid layer of the meatus throws out a discharge very similar to that formed in the external ear: sometimes the epidermis collects in so large a quantity as to obstruct the canal, and gives rise to symptoms of pressure on the membrana tympani, which I shall more particularly allude to in speaking of diseases of the meatus. The treatment of chronic eczema is very similar to that of chronic erysipelas. Frequent ablutions with tepid water, combined with emollients, should be practised in the early stages of the affection when the skin is very sensitive, and it should be protected from the air by oiled silk, or very thin vulcanized india rubber. Afterwards mild astringents are to be used, and as Mr. Wilde

recommends, a solution of gutta percha in chloroform may be painted over the surface several times until a complete coat has been formed; it is to be renewed from day to day, as often as it peels off. It is desirable that the head be kept cool; and, instead of the ears being studiously covered by several layers of warm material, they should be exposed as freely as possible, and very soft pillows avoided. The meatus should be frequently syringed with tepid water, not only for the purpose of removing the dead cuticle and discharge, but also for the purpose of soothing the irritable dermoid membrane. The introduction into the meatus of ear-picks, and other foreign bodies, for the purpose of allaying the itching of the tube, must be studiously avoided; and, if the itching becomes very distressing, then a vapour bath and hot injections should be resorted to. In later stages of the affection, when both dermis and epidermis become thicker than natural, the unguentum zinci, or the unguentum hydrargyri nitratis, may be employed. In addition to local applications, constitutional remedies should be resorted to. In adults, any derangement of the general system should be attended to; alterative medicines may be administered, great attention to diet enjoined, as well as abundant exercise in the open air. In children, these constitutional remedies require to be still more sedulously used; and, in instances where there is a tendency to glandular enlargements, sea or country air may be advantageously recommended. In addition to the two kinds of inflammation above noticed, the auricle is sometimes subject to a chronic inflammation, the seat of which appears to be the cartilage, or its immediate investment; it is characterized by slight congestion, and by extreme sensibility upon pressure. The auricle is often the seat of chronic inflammation, accompanied by excoriations; frequent ablution with tepid water, and the use of mild astringents, generally effect a cure.

III. *Cysts, Tumours, Deposits, and Malignant Diseases.*

Cysts.—The only kind of cyst to which the external ear is subject is that formed by an effusion of blood between the cartilage and the integuments. It has most generally been found in insane persons; and, according to my friend, Dr. Thurnam, of the Wilts County Asylum, who has paid particular attention to the subject, and who has favoured me with his experience upon it, it is not now so prevalent as formerly. This he ascribes to the fact that less personal violence is now used. It has been thought to be by some peculiar to the insane; such, however, is not the case, for a patient with this affection was admitted under my care in the year 1852, at St. Mary's Hospital, and one, if not two, other cases of the kind have also presented themselves to me.

Dr. Thurnam calls this disease "Hæmatocele of the external ear." In a letter to me on the subject, he says, "In the first stage of this affection, I believe an effusion of blood exists between the folds of the integuments, and around the fibro-cartilage of the ear; if punctured in this stage, there is a discharge of the serum of the blood, mixed with coagulum. I think, however, the proper practice is, *not* to puncture in this early stage, but to apply evaporating lotions. Even under this treatment, though still more if left to itself, the tumour often increases, so as entirely to disfigure the ear, and produces a large hot swelling, of a livid red colour. At the end of a week or two, according to circumstances, I have passed, with a common or curved needle, a small seton through the long axis, pressing out the contents, which are now, in addition to their sanguineous nature, more or less purulent, and allowing the rest to escape gradually. At first, the diminution of the tumour is trifling, but under the use of the seton it gradually subsides, and at the end of two or three weeks a certain amount of chronic thickening only remains. Where no such treatment has been adopted, the resulting deformity has been very marked, and has continued through life."

The patient who came under my notice at St. Mary's Hospital was a man, aged 26, a boxer, who had received a blow on the ear a fortnight previously. The cyst was about the size of a small walnut; it had been punctured, and a transparent fluid was evaporated; it had, however, soon formed again. He did not return to undergo any treatment.

Tumours.—The lobule of the external ear is subject to hypertrophy and to the development of tumours in its substance. Tumours are also developed from the surface of the cartilage or from the cellular tissue covering it.

Mr. Wilde relates a case of tumour in the substance of the lobule which I will quote to you:—"M. S., a female, aged 19, has a hard, firm ovoid tumour occupying the centre of the lobe on each side, but largest on the left. It is of a stony hardness, and is quite distinct both from the cartilage above and the fleshy part of the lobe, which it appears to pass through. The skin covering it is smooth and of a light pinkish hue, like that of a keloid tumour. It grew gradually from the orifice made for holding the ear-ring, and has been several months attaining its present size. The tumour upon the opposite side, which also surrounds the hole made for the ear-ring, is much paler in colour, and not larger than a garden pea. The girl states, she experienced a great deal of pain and soreness in the wounds made in piercing the ears, and that about three or four months afterwards she was obliged to remove the ear-rings, on account of the irritation they produced. The large tumour was dissected out, and the elliptical aperture left in the lobe brought together with sutures. It healed kindly, and the disease did not return. A section of the tumour exhibited a dense yellowish-white fibrous appearance, and was so hard that the nail made no impression on it."

Calcareous concretions, in the shape of gouty deposits, are not unfrequent in the external ear. Dr. Garrod has particularly alluded to them.

Scirrhus—Kramer, in his work on the diseases of the ear, devotes a section to the consideration of a disease which he entitles "scirrhous degeneration of the auricle." In its early stages, he describes its symptoms as analogous to those of erysipelas. As the disease advances, excoriation and ulceration of the auricle take place, and the cartilage is perforated and destroyed. The auricle becomes nodulated and misshapen; the nodules ulcerate. I have not met with the disease, excepting when complicated with disease of the petrous bone. Dr. Kramer cites three cases of supposed scirrhous degeneration; of these the following occurred in the practice of Dr. Fischer:—"A countryman, when 8 years of age, perceived an itching, which depended on a scabby eruption on the head. This extended to the right ear, and its irritation being increased by roughly rubbing it with the hand, the skin was corroded. A redness and swelling of the ear, the certain attendants of inflammation, continued from that time, much encouraged by the plethora and strength of the individual. The disease now remained stationary for some years, but at the time of manhood it broke out afresh, and with increased intensity. During his twentieth year, it had acquired so enormous an extent that the whole auricle was converted into a knotty, deformed, and lumpy mass, in which the natural projections could scarcely be detected. At the anterior and inferior extremity of the antihelix the degenerated mass had begun to suppurate. Dr. Fischer cut away with a knife the whole degenerated ear, and the wound healed in less than six weeks."

ORIGINAL COMMUNICATIONS.

ON THE TESTS FOR STRYCHNIA AND BRUCIA.

By HENRY HOUGH WATSON.

In the *Times* newspaper of the 28th of March, 1856, there was a letter from Mr. Slater, of Sheffield, in which he recommended the use of chlorate of potash in preference to bichromate of potash as a test for strychnia; saying that it has been surmised that the bichromate, under certain circumstances, may be fallacious. He directs that a few drops of pure sulphuric acid be mixed with an equal bulk of water, and the mixture allowed to cool; after which, chlorate of potash in fine powder is to be added, and then the suspected substance; and "if strychnia be present, an intense maroon red colour appears, gradually fading into a rose violet." He further adds, "in principle, this process agrees with the ordinary test, but the materials used are much less capable of producing any varied play of colours."

In operating according to Mr. Slater's directions, I have obtained a red colour from the presence of strychnia,—I suppose the red which he calls maroon: but, without the pre-

sence of brucia, I have not been able to produce the change to *rose violet;* and I am, therefore, led to conclude that in the experiments he had made, the strychnia used was not free from brucia. It is a characteristic of brucia to give a strong and rich rose pink or rose violet when chlorate of potash is applied to it in the manner directed by Mr. Slater in the case of strychnia. Indeed the chlorate is an excellent test for brucia; a much better test than nitric acid is for it, and a far more delicate test for brucia than for strychnia.

The notice of this test directed me into a train of experiments to ascertain the comparative results of the application of most of the best tests generally resorted to in testing for strychnia; in which experiments I applied the tests to pure strychnia and pure brucia separately, and under similar circumstances as to strength of solutions, &c.; and, in one instance, the tests were applied to a mixture of the two alkaloids in solution. The particulars of the results are herewith annexed. I think they will be interesting to the Medical public; and I doubt not they will be useful for reference.

It will be observed that the experiments have been made on the alkaloids each free from the other, chiefly, because there is reason to believe that it is not so difficult as many people suppose to obtain strychnia free from brucia as an article of commerce. In Dr. Taylor's work on poisons, page 779, he says, "This red colour, thus given by nitric acid, (when applied to strychnia,) appears to be caused by the presence of brucia. I have, however, found it to be more or less produced in all the specimens of uncombined strychnia which I have tried; and it is pretty certain that no specimen of strychnia is ever likely to come before a Medical jurist in practice, which does not possess the property of being turned red by nitric acid although pure strychnia and its salts are certainly not thus affected." Now I believe that a remark almost amounting to the same, was made in the course of the evidence given in the recent inquiry in the suspected poisoning case at Leeds. It is doubtful whether such statements may not tend to encourage an opinion that, if, in testing for strychnia, nitric acid gives no red colour, it is scarcely worth while to pursue the inquiry any further. But, to stop a chemical examination at the negative result of that test would be wrong; as may be perceived from the following case:—

About three years ago, a game-keeper, a few miles from Bolton, had been in the habit of poisoning farmers' dogs, cats, &c., as a means of assisting him in his work of preserving game; but he could not be caught in the fact till a boy, who saw him put his hand in his pocket, and then therefrom repeatedly throw something in various places as he went along in the fields, followed him and picked up what he had thrown; and which were found to be pieces of animal matter, —spleen, or "sheep's milt." Several of these pieces (each something less than a square inch) were brought to me for examination. In them, an incision had been made; on opening which, I found about a tenth of a grain of small white crystals, pure strychnia. These crystals, dissolved in concentrated sulphuric acid, gave all the indications characteristic of strychnia by the application of bichromate of potash and peroxide of manganese; and when dissolved in acetic acid, they gave the yellow precipitate with chloride of gold; but, when they were put into nitric acid, no red colour was produced. Here, then, was an instance of a common game-keeper having, by some means, become possessed of strychnia free from brucia. And, if he could obtain it so pure, is there not reason to believe that the pure alkaloid may be more readily obtained than has been supposed? Proceedings in the matter were taken before the magistrates; a report of which may be seen in the *Bolton Chronicle* newspaper of April 30, 1853. I mentioned the fact to Dr. Taylor afterwards, when I had the pleasure of meeting him in a case in which we were both professionally engaged at Liverpool.

The pieces of meat in which the strychnia was found, I did not throw away, but have kept them up to the present time, in the paper in which I received them; and owing to recent controversy, I have lately referred to them again. On opening the paper containing them, I found them dry and covered with mould; and on scraping them at the part from which I had before removed the crystals, I could still obtain matter containing some small crystals, which when treated with sulphuric acid, bichromate of potash and peroxide of manganese, gave, as decidedly as ever, the blue, purple, and crimson colours indicative of strychnia; though it had been in contact with this animal matter for about three years. I am reserving some of the pieces of meat having this property for future experiments.

Solution of 1 *grain of the Alkaloid in* 500 *grain measures of Diluted Sulphuric Acid, specific gravity* 1·54; *and this again diluted with Water till the Alkaloid is present to the extent of*

Tests applied.	Only 1 grain in 2500 gr. mea. of the Liquid.		Only 1 grain in 5000 gr. mea. of the liquid.		Only 1 grain in 10,000 gr. mea. of the liquid.		Only 1 grain in 20,000 gr. mea. of the liquid.	
	Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia.	Brucia.
Chlorate of potash, in powder	No colour; but, by the addition of oil of vitriol, a redness is produced.	No colour; but, by the addition of oil of vitriol, a pink is produced.	No colour.	No colour.	No colour.	No colour.	No colour.	No colour.
Bichromate of potash, in powder.	No colour; but, by the addition of oil of vitriol, blue, purple, crimson, and red are produced.	A strong pinkish red colour, changing quickly to orange and amber, after which no fresh colour by oil of vitriol.	No colour.	A pinkish red, changing to orange and amber.	No colour.	A very faint orange tint.	No colour.	No colour.
Peroxide of lead	A straw colour, and no other by oil of vitriol.	An amber colour, and no other by oil of vitriol.	No colour.	An amber colour.	No colour.	A very pale amber tint.	No colour.	No colour.
Peroxide of manganese.	No colour, but a pinkish red by oil of vitriol.	A pink colour, changing to reddish brown, and no fresh colour by oil of vitriol.	No colour.	Pink, changing to reddish-brown	No colour.	A very pale pink tint.	No colour.	No colour.
Nitric acid.	No colour, and none by oil of vitriol.	An orange red colour.	No colour.	An orange-red colour.	No colour.	A pale orange-red.	No colour.	A weak orango-red tint.
Red prussiate of potash in solution.	None; but, by oil of vitriol, blue, purple, crimson, and scarlet are produced.	None; but by oil of vitriol red is produced.	None.	None.	None.	None.	None.	None.
Chloride of gold*	A yellow precipitate.	A light brown precipitate.	A yellow precipitate.	A light brown precipitate.	A yellow precipitate.	A brownish-yellow precipitate.	A yellow cloudiness.	A yellow cloudiness.

* Chloride of gold is the most delicate of these tests for strychnia in solutions so much diluted with water. It causes a very decided yellow oudiness when the solution is further reduced with water, even till the quantity of the alkaloid is only one grain in 70,000 gr. mea., or one grain in a allon. In the case of the brucia solution reduced to 1 grain in 70,000 gr. mea., chloride of gold causes only an exceedingly slight cloudiness.

Experiments on the Alkaloids dissolved in Sulphuric Acid diluted to the specific

Tests applied.	1 grain of the Alkaloid in 500 gr. mea. of the diluted acid.		1 grain of the Alkaloid in 5000 gr. mea. of the diluted acid.		1 grain of the Alkaloid in 10,000 gr. mea. of the diluted acid.	
	Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia.	Brucia.
Chlorate of potash in powder.	A maroon red, changing to orange-red, and pale amber.	A strong and rich rose pink or rose violet, quickly changing to scarlet and orange.	A faint pink tint, or a pale red.	A strong and rich rose-pink or rose-violet, changing to faint amber.	A faint pink.	A rose-pink or rose-violet, quickly changing to faint amber.
Bichromate of potash in powder.	Blue, purple, crimson, scarlet, and orange-red.	Scarlet, changing to amber and lemon-yellow.	Blue, purple, crimson, red, and orange.	A strong pinkish red, changing to orange and amber.	Blue, purple, crimson, red, and orange.	Pinkish-red, changing to orange and amber.
Peroxide of lead.	Blue, purple, crimson, and scarlet.	Red, changing to light amber.	Purple, crimson, and scarlet.	Pale crimson.	Purple, crimson, and scarlet.	Pale crimson.
Peroxide of manganese.*	Purple, crimson, and scarlet or maroon.	Crimson, changing to deep amber.	Crimson, red, and reddish-brown.	Pinkish red, changing to yellow.	Pink.	Pink.
Nitric acid.	No colour.	Red.	No colour.	Red.	No colour.	Pale red and amber.
Red prussiate of potash in solution.	Blue, purple, crimson, and scarlet.	Scarlet, changing to yellow.	Blue, purple, crimson, and red.	Red, changing to yellow.	Blue, purple, crimson, and red.	Amber, changing to yellow.
Chloride of gold in solution.	A bulky yellow precipitate. On boiling, the liquor and precipitate change to blood-red, a *portion* of the precipitate becoming dissolved, and the whole of it becoming dissolved by the addition of more of the sulphuric acid, (sp. gr. 1·54,) and boiling.	A bulky pink precipitate, changing to brown. On boiling, the precipitate and liquor become green, and again change to a dirty-brown, almost the whole of the precipitate being dissolved.	A yellow precipitate, which dissolves on being heated below boiling. On boiling, the liquor becomes red and cloudy.	A pink precipitate, changing to a dirty smoke tint. On being heated below boiling, it dissolves, and the liquor is green; but on boiling, this becomes cloudy, and of an amber colour.	A yellow cloudiness. On being warmed, this vanishes; but on boiling, there is again cloudiness, and the liquor is turned red.	A pink colour, (rather cloudy,) changing to a smoke-tint. On being heated, it becomes green; and on boiling, an amber colour.

* When reduced to 1 in 10,000 gr. mea. and further, there is no distinguishable difference in

By comparing the following results with the preceding, it will be seen how Morphia differs from Strychnia and Brucia in the action of the several Tests.

Tests applied.	Morphia dissolved in Sulphuric Acid; specific gravity 1·54.	
	1 grain in 500 gr. mea. of the acid.	1 grain in 5000 gr. mea. of the acid.
Chlorate of potash.	An amber colour.	A straw colour.
Bichromate of potash.	A straw or yellow colour, ending in green.	A straw colour.
Peroxide of lead.	A straw or yellow colour.	None.
Peroxide of manganese.	A straw or yellow colour.	None.
Nitric acid.	Red colour.	Amber colour.
Red prussiate of potash.	A straw or light amber colour.	A light straw colour.
Chloride of gold.	A yellow precipitate, a portion of which dissolves by boiling, and the liquor becomes brown. If much water be added (without boiling) the yellow precipitate becomes dissolved.	A yellow cloudiness.

I approve of the use of sulphuric acid of the strength used in these experiments (sp. gr. 1.54, or what is produced by mixing about equal bulks of oil of vitriol and water,) as the medium through which to apply the tests for strychnia in a suspected substance, when there is nothing present to make the use of sulphuric acid objectionable. It is preferable to concentrated sulphuric acid when the alkaloid is accompanied by farinaceous matter, as wheat flour or the like; it is not so liable as the concentrated acid to char the flour; and, when it is used, the flour is much less effective in preventing the action of the tests than when the concentrated acid is used. In the case of the concentrated acid being used, the presence of much flour almost entirely prevents the tests from giving the otherwise usual indications of the presence of the alkaloid. It is not advisable to use acid much more diluted than this; for, the addition of much water to the acid solution of strychnia prevents the colours from being shown on the application of the tests. In the instance of brucia, the addition of water does not prevent, to the same extent, what would otherwise be the results of the tests; as shown by the hereinbefore given results of experiments. When the acid, sp. gr. 1.54, containing one grain of strychnia in 500 gr. mea., is further diluted with its own bulk of water, the addition of bichromate of potash only produces an exceedingly pale amber colour, changing to a pale brownish red. The presence of alcohol is still more effective than water in preventing the action of the tests. When ten parts by measure of the acid solution of one grain in 500 gr. mea. is mixed with two or three of alcohol, the application of bichromate of potash produces only a very little purple, quickly changing to faint pink. Hence may be seen the propriety of evaporating away all the alcohol, when it has been used as a solvent in separating the alkaloids from other matter, before applying the tests.

It is a fact worthy of notice, that, if concentrated sulphuric acid, containing 1 grain of strychnia in solution in 500 grain mea., be suddenly mixed with its own bulk of water, the great heat produced seems not to injure the alkaloid; and the mixture, when it has become cold, shows strongly the usual blue, purple, and crimson colours, when powdered bichromate of potash is added. But, when the dilution is made with beer instead of water, the mixture is black, owing to the organic matter of the beer being charred; and I have reason to believe that in this instance the strychnia is so decomposed as not to give the usual indications of its presence when the cleared liquor is tested.

There are some facts requiring remark in reference to the effect of the chloride of gold test when applied to strychnia, morphia, and brucia, in solution in acetic acid. It is said (Taylor, on Poisons, page 779,) "Strychnia dissolved in acetic acid gives a dense yellowish white precipitate with chloride of gold. This is not re-dissolved on boiling, nor is the gold reduced; but the liquid acquires a pink red colour. Morphia, under the same circumstances, gives no precipitate with chloride of gold; and metallic gold is immediately set free on boiling the mixture." Now these statements are almost entirely at variance with the results of experiments carefully made by me. As follows:—

1st.—One tenth of a grain of strychnia is dissolved in one gr. mea. of acetic acid. (sp. gr. 1.04), and the solution diluted with 59 grains of water, the addition of 2 gr. mea. of my test

gravity 1·54, *showing the Effects produced by the Application of the Tests.*

1 grain of the Alkaloid in 20,000 gr. mea. of the diluted acid.		1 grain of the Alkaloid in 35,000 gr. mea. of the diluted acid.		1 grain of the alkaloid in 70,000 gr. mea. of the diluted acid.		1 grain of the Alkaloid in 140,000 gr. mea. of the diluted acid.		1 grain of each the Alkaloids in 280,000 gr. mea. of the diluted acid.
Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia.	Brucia.	Strychnia and Brucia.
A very faint pink.	A rose pink or rose violet, quickly changing to faint amber.	An exceedingly faint pink.	A rose pink or rose violet, quickly changing to faint yellow.	No colour.	A strong pink, quickly disappearing, and leaving the liquor colourless	No colour.	A rather strong pink tint.	A faint pink.
Blue, purple, crimson, red, and orange.	Pinkish - red, changing to orange and amber.	Purple, crimson, red, and amber.	A faint pink, changing to pale amber.	A strong pink tint, changing to light red.	A very faint pink, quickly disappearing.	A faint pink tint, changing to pale red.	An exceedingly faint pink tint.	A faint pink.
Pale purple crimson, and scarlet.	Very pale crimson.	Crimson and scarlet.	A pink tint.	A strong pink tint.	A very faint pink tint.	A faint pink tint.	An exceedingly faint pink tint.	A faint pink.
A pale pink.	A pale pink.	A faint pink.	A faint pink.	A faint pink tint.	A very faint pink tint.	A faint pink tint.	An exceedingly faint pink tint.	A very faint pink.
No colour.	Pink and amber.	No colour.	A faint pink, and amber.	No colour.	An exceedingly faint pink tint.	No colour.	Scarcely any change.	No colour.
Blue, purple, crimson, & red.	Amber, changing to yellow.	Dark purple, crimson, and orange.	Faint amber, changing to yellow.	Faint purple, faint crimson, and red.	No colour.	Exceedingly faint purple and red.	No colour.	.. ..
A yellow cloudiness, which dissolves on being heated below boiling. On boiling, the liquor becomes of a reddish amber colour, and again cloudy.	A pink colour (rather cloudy) changing to a smoke tint. By heat, it becomes clear and green; but on boiling, of a pale amber colour, and rather cloudy.	A very slight yellow cloudiness, which dissolves on being heated. On boiling, the liquor becomes of a faint reddish amber, and again cloudy.	A faint pink colour (and very slight cloudiness), changing to a smoke tint. By heat and boiling it becomes greenish, and then of a pale amber, and cloudy.	No precipitate, but a yellow liquid, caused merely by the mixing of the chloride of gold solution.	No precipitate, but a brownish - coloured liquid, changing to yellow.	No precipitate, but a yellow liquid, caused merely by the mixing of the chloride of gold solution.	No precipitate, but a brownish - coloured liquid, changing to yellow.	An exceedingly slight brownish tint.

colour between Strychnia and Brucia, as regards the effect produced by the Manganese test.

solution of pure chloride of gold (a) gives a bulky yellow precipitate, not what I should call whitish, but rather of a fawn tinge. On boiling, not much of the precipitate dissolves; but it changes to a dirty greenish-yellow after boiling a while; and reduced or metallic gold adheres to the side of the glass tube. When the boiled precipitate has settled, the liquor is of a very pale greenish-yellow colour. There is not any pink or red colour.

2nd.—One tenth of a grain of strychnia is dissolved in 30 gr. mea. of the acetic acid, and then 2 gr. mea. of the test solution of chloride of gold added. A bulky rather light yellow (not yellowish-white) precipitate falls. Some of this precipitate, but not the whole of it, dissolves on boiling; it does not all dissolve when 30 gr. mea. more of the acid are added, and again boiled. There is no pinkish or red colour.

3rd.—One tenth of a grain of strychnia is dissolved in 60 gr. mea. of the acetic acid, and 2 gr. mea. of the test solution of chloride of gold added. There is a bulky yellow precipitate, a little of which remains undissolved on boiling. By 10 gr. mea. more of the acid being added, and the whole again boiled, all the precipitate is dissolved; and the liquor is of a light yellow colour. There is not, immediately, any reduced gold; but, by continuing the boiling, some gold becomes reduced, and adheres to the side of the glass. There is no pinkish or red colour.

4th.—One tenth of a grain of strychnia is dissolved in 15 gr. mea. of the acetic acid, and 2 gr. mea. of the solution of chloride of gold added, in which I had previously mixed 1 gr. mea. of nitric acid. There is a bulky yellow precipitate. On boiling, the whole of the precipitate does not dissolve; but the liquor becomes red; and, on cooling, of a pinkish red, and it then gives a pink precipitate. After this pink precipitate has subsided, the liquor is left of a pale yellowish colour.

And on this experiment being exactly repeated, but without any nitric acid being mixed in the chloride of gold solution, a bulky yellow precipitate is again produced, which does not all dissolve on boiling; and the liquor does not become pink or red, but the solution and precipitate both remain yellow; and it is a strange fact that, the addition of nitric acid now, and again boiling, does not produce any pink or red colour, but the liquor and precipitate still remain yellow. It, therefore, seems that, to produce the pinkish red, the nitric acid must be added to the solution of gold before it is added to the solution of strychnia; and it also seems evident that, in the case of the pinkish red alluded to by Dr. Taylor, the chloride of gold used must not have been freed from the nitric acid employed in preparing it.

5th.—One tenth of a grain of morphia is dissolved in 1 gr. mea. of the acetic acid diluted with 59 grains of water, and 2 gr. mea. of the solution of chloride of gold added. There is a bulky yellow precipitate, (not very unlike that from strychnia,) but it becomes of a greenish-yellow on standing. By boiling, the precipitate dissolves, and the liquor is greenish-yellow; a little reduced gold adhering to the side of the tube. On cooling, the liquor remains greenish-yellow; and there is a little brown precipitate or reduced gold at the bottom.

6th.—One tenth of a grain of morphia is dissolved in 60 gr. mea. of the acetic acid, and 2 gr. mea. of the solution of chloride of gold added. There is a yellow precipitate; but not so bulky as when less acid was used: and this precipitate might, by an inexperienced eye, be mistaken for that by strychnia; except that the morphia yellow soon begins gradually to turn of a greenish-yellow or light green. On boiling, it dissolves; and the solution is of a greenish-yellow colour. On cooling, the solution remains greenish-yellow; and there is a little brown precipitate or reduced gold at the bottom.

I conceive that, when Dr. Taylor did not get a precipitate, his morphia must have been dissolved in a very large quantity of acetic acid; or else that his gold solution must have contained excess of acid. It is requisite, in making these comparative experiments, to be particular as to the weights and measures of the several ingredients.

7th.—One tenth of a grain of brucia is dissolved in 10 gr. mea. of the acetic acid diluted with 10 grains of water, and 2 gr. mea. of the solution of chloride of gold added. There is a bulky light-brown precipitate. On boiling, some of the precipitate dissolves, and the liquor becomes of a yellowish-red colour. The whole of the precipitate is not dissolved by the addition of 45 gr. mea. more of the acetic acid and boiling. The liquor, when cold, becomes of a deep red colour, with less yellow than when hot.

Again, when one tenth of a grain of brucia is dissolved in 60 gr. mea. of the acetic acid, and 2 gr. mea. of chloride of gold added. There is a yellow (not brown,) precipitate; the colour

(a) The two grain measures of solution contain 0·16 of a grain of chloride of gold.

changes but little, if any, by standing a short time. When the precipitate has settled, the liquor is also yellow. The precipitate is not so bulky as the brown one was when only 10 acid and 10 water were used. On being heated below boiling, all the precipitate dissolves; and, on boiling, the liquor becomes of a yellowish-red colour. On cooling, a brown precipitate falls; and the liquor becomes, when cold, of a deep red colour, with less yellow than when hot.

It will be observable that the particular results of these various experiments depend much on the quantity of alkaloid dissolved in a given quantity of liquid, and on the quantities of acid and water constituting the liquid. All such experiments as these, depending so much on colour and shades of colour, should, of course, be made by daylight.

In criminal cases, there cannot be too much caution used in testing for the alkaloids, and in being sure that all the various tests, in the several instances, fully corroborate each other in the most indubitable manner. After all, though we may not know any other ingredient besides a suspected one in any case likely to give results apparently corroborating by all the tests, yet, it is a serious question whether, in all the various compounds in nature, there may not be something which we are at present unaware of, capable of giving nearly the corroborating results. The thought is certainly enough to make one pause, at least, before giving an answer to confirm a criminal charge, unless, at all events, supported and confirmed in the most certain and complete manner by physiological symptoms and effects.

The Folds, Bolton-le-Moors, April 29, 1856.

P.S.—Since I sent the foregoing paper to the *Medical Times and Gazette*, in April last, I have made another experiment on a portion of the dried animal matter containing strychnia, and which I have had in my possession for more than three years, as mentioned in the above paper. I put 16 grains of the animal matter into 40 grain measures of the sulphuric acid, (sp. gr. 1.54,) and kept it in for two hours. The liquor became but very little discoloured by action on the animal matter; and it gave deep purple colour, passing to crimson and red, when tested with bichromate of potash, peroxide of lead, and red prussiate of potash; it also gave a yellow precipitate with chloride of gold. Hence, it appears probable that a suspected stomach, or the like, may, after being dried at least, be tested successfully, without the aid of alcohol, by being submitted for a while to the direct action of sulphuric acid of this strength, and the subsequent application of the several tests to the acid drained off.

Within the last ten days, a statement has been extensively published by Mr. Braid, of Manchester, that the presence of tartar emetic with stryehnia has the effect of nullifying the usual colour tests for pure strychnia: but the statement is not correct. For, I find that when a fifth of a grain of strychnia, and 2 grains of tartar emetic, (that is, one part of the former to ten of the latter,) are dissolved in 200 grain measures of oil of vitriol, the tests act as follow, with portions of the solution:—

Bichromate of potash, in powder, gives blue, purple, crimson, and red, ending in green.

Chlorate of potash, in powder, gives deep amber, or orange red.

Peroxide of manganese gives blue, purple, crimson, and red.

Red prussiate of potash, in solution, also gives blue, purple, crimson, and red.

Chloride of gold gives a canary yellow precipitate, changing to a deep or orange yellow.

When the same quantity of the sulphuric acid, sp. gr. 1.54, is used instead of oil of vitriol, for dissolving a fifth of a grain of strychnia and two grains of tartar emetic, the tests give the following results:—

Bichromate of potash, in powder—blue, or dark purple, crimson, and red.

Chlorate of potash, in powder—red, changing to amber.

Peroxide of lead—blue, purple, crimson, and red.

Peroxide of manganese—crimson.

Red prussiate of potash, in solution—blue, purple, crimson, and red.

Chloride of gold—a canary yellow precipitate.

Owing to the presence of the tartar emetic, it is requisite to use some more than would otherwise be required of either of the several oxidising tests; a quantity being wanted to convert the protoxide of antimony in the tartar emetic into a higher oxide of antimony before the oxidation of the stryehnia takes place. There is no such modification of the usual results, caused by the presence of antimony, as is likely to mislead any person who has had experience in chemical operations on stryehnia.

June 7, 1856. H. H. W.

ON THE DIAGNOSIS OF, AND TREATMENT FOR, ROUND WORM;

AND ON THE OCCURRENCE OF A NEW SPECIES OF TÆNIA IN THE HUMAN BODY.

By W. H. RANSOM, M.D.,
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In the summer of 1852, while engaged in observations on the entozoa of domestic animals, I was led to examine the fæces of cats and dogs, to ascertain if they contained any ova of nematoid worms, and whether, therefore, it was worth while to kill the animal in order to obtain the worms. A very natural suggestion sprung from this, viz.:—that I might in the same way diagnose the existence of Asearis lumbricoides in man. Very few suitable cases, however, presented themselves, and, for a long time, I could not apply the idea. While examining the fæces of children, whose symptoms suggested the possibility of their being infested with that entozoon, I met with the following case in which the ova of a cestoid worm, differing from any hitherto described, were contained in the stools.

History.—Ann Stead, aged 9 years, child of poor parents, resided all her life at Old Radford, in a low, damp situation, near a mill dam; engaged in nursing an infant. Father and mother living; natives of this neighbourhood, and have never been out of England. The child has always been delicate, but never laid up with any serious illness; her diet has not differed from that of other members of the same family, or from that of other poor persons of the district; she has, however, been fond of fruit and vegetables, especially of raw cabbage. American flour has been used by the family, and a little raw bacon has been eaten in the house.

Present Illness.—Began, in March, 1854, to complain of faintness and weakness early in the morning, with an indisposition to rise. She was treated by a Druggist with purgative medicines, which were intended to bring away worms, but did not. She became weaker; lost flesh, strength, and colour; the appetite was capricious; and she had occasional pain in the left side. She had no vomiting or nausea, convulsions or itching of the seat or nostril; had not a ravenous appetite, or gnawing pains in the abdomen; never passed joints of tapeworm, or any seat worms or round worms.

July 11, 1854.—Consulted me, complaining as above. She was a thin, pale, badly nourished child, with some congenital deformity of the thorax. I directed some of the stool to be sent for examination, and found in it a considerable number of clear, thick-shelled oval eggs, of a cestoid worm. One of these measured $\frac{1}{685}''$ by $\frac{1}{543}''$, and another $\frac{1}{606}''$ by $\frac{1}{492}''$, so that the long diameter but little exceeded the short. The shell was marked by a delicate, concentric, irregular striation, as if it were made up of fibres; in the cavity lay a rounded, nearly transparent, finely granular embryo, not quite filling the space; and in the substance of the embryo, collected to one portion of its periphery, were imbedded three pairs of hooklets, arranged as in Figure 1.

Fig. 1.

Seen with ¼ objective, drawn without a camera—Ovum of a species of Tænia from the fæces of A. S.

There could be little doubt that these were ova of a cestoid worm of the genus *Tænia;* but they were distinguished at once, by their greater transparency, from the ova of Tænia solium or Tænia mediocannellata, as well as from those of Bothriocephalus latus. The stool contained also a few ova of Triehoecphalus dispar, very numerous spores of the Uredo caries, and the usual undigested residue of food.

A dose of calomel and scammony was given, and followed by half a drachm of ethereal oil of male fern. The whole of the copious evacuations which followed was examined without

finding any worms. She continued, however, to pass the same ova in the stools.

August 11.—I examined the stools of her sister Eliza, aged 6 months, but found no similar ova: also the stools of William, aged 7 years,—Mary, aged 11 years,—Sarah, aged 13 years,—and Rebecca, aged 14 years; her brother and sisters were examined without finding any such eggs. During the following Autumn and Winter she continued to pass these ova in the stools, and though turpentine and other anthelmintics were administered, no worms or fragments of worms could ever be found on careful search. Simple vegetable bitters and careful diet were employed with the effect of improving her general health; but as the ova were still present in the stools, she was admitted into the General Hospital, Nottingham, May 19th, 1855, at which time she declared herself well in health, but the fæces still contained the peculiar ova. The diet was limited to milk and farinaceous matters. She was treated first with kousso, which was at once expelled, by vomiting, and another dose shared the same fate.

May 31.—Oil of male fern was given, and, to prevent sickness, which had on a former occasion been excited by this remedy, it was administered in gelatine capsules. She took altogether ten capsules in six hours, said to contain each 20 minims, but probably not holding quite so much. She was freely purged, the stools being slimy, and the mucus faintly tinged with blood; but no uneasy sensations were produced. After a very careful search in all the stools passed, no worms or fragments of them could be found. For a short time she was then put on ordinary hospital diet, and left to rest.

June 10.—She passed unexpectedly a large Ascaris lumbricoides, which on examination proved to be a female, but contained in its uterus only unripe ova with imperfect shells.

20th.—Having first ascertained that the ova were still present in the fæces, she was ordered an electuary of dolichos pruriens. The motions were carefully watched till June 30th, but no worm came away.

July 2.—Having again ascertained that the ova were still present in the stools, 1½-oz. of decoction of pomegranate was given every two hours for three days, but no worm passed in the stools.

7th.—All treatment omitted.

9th.—She passed three individuals of Ascaris vermicularis; in the uterus of one of these numerous nearly ripe ova were found, but they could not be confounded with the cestoid ova.

July 14.—Having again ascertained that the ova were still passed in the stool, an extract was administered, obtained by exhausting half an ounce of kousso with ether, spirit of wine and water successively, and mixing all the results. (As the proper menstruum of the active principle of kousso is not known, at least to me, this plan was adopted to ensure the activity of the extract). A dose of castor-oil was given after the extract, which caused no sickness, but no worm was passed.

After this she lost patience, and left the Hospital; but on examining the stools sent to me afterwards, September 6, the ova were still present as before.

Remarks.—On considering the facts here stated, it will, I think, be fair to conclude, that a tænia infested this child, and continued during fifteen months to discharge its ova into the alimentary canal; for although it might be possible to admit that, occasionally, tænia ova might find their way into the intestines with the food, and then pass away in the stools without developing themselves in the parenchymatous organs as cystic entozoa, yet it will hardly receive credence that such accidental admission of ova with the food should continue for fifteen months in one member only of a large family, and under varied circumstances as to diet and locality. This must be a new species of tænia, as proved by the characters of the ova, and rendered probable by the inefficacy of the remedies known to be effectual in the expulsion of other cestoid worms. Without expressing a very strong opinion, I am more inclined to think that it inhabits one of the glandular ducts communicating with the intestinal canal, and thus escapes the action of the vermifuges, than that it really resists their action by reason of its specific peculiarities; for it will be remembered that male fern and kousso are efficacious vermifuges for all the known species of tape-worm.

This new species of tænia, of which I have ventured to assert the existence, from the examination of the ova alone, is peculiar in another particular, viz., that it casts off the ova separate from the segments, and they appear free in the fæces, while the T. solium and T. mediocannellata both throw off their segments entire when ripe, and but few free ova appear in the fæces. The same I believe to be true of Bothriocephalus latus. In the dog, the T. serrata casts off ripe segments, as well as free ova, in the stools.

It is not a little singular that in this child no less than four species of intestinal worms were present; that the two species diagnosed by the presence of the ova in the stools resisted the action of the vermifuges, but that a single example of Ascaris lumbricoides came away, and three of Ascaris vermicularis, without having been indicated by the presence of ova in the fæces, and at times when no medicine was being taken. This fact, however, does not diminish the value of the indication when it is present; and it may, I think, be safely stated, that when worms exist in the intestinal canal and their ova are not present in the stools, the worms are few in number and not yet sexually ripe, as, indeed, the examination of the individuals passed in this case shows.

It is much to be desired that those who have facilities will examine the stools of children dying of various diseases, and, in instances where these ova may be formed, institute a very careful post-mortem examination of the intestinal canal, and of the ducts which communicate with it. Thus we may hope some day to see demonstrated what is here inferred.

A case at length presented itself which permitted me to test the value of the examination of the stools in the diagnosis of round worm; and, as it was in several points very instructive, I give it in detail.

History.—C. S., aged 12 years, Friesland, child of poor parents, working at home as a seamer, good general health, presented herself as an out-patient at the General Hospital, Nottingham, February 13, 1855, having had for six weeks some pain in the side of the belly, and having passed during that time two round worms after aperient medicine.

Fig. 2.

Ova of Ascaris lumbricoides from the fæces of C. S., seen with ¼ objective, drawn without a camera. *a* The usual appearance. *b* The same altered by longer action of the fæces upon the shell.

February 14.—She was admitted an in-patient for convenience of observation; complained of nothing else but the pain above described and some weakness. Her appearance was healthy, and the belly was very slightly tumid, with some tenderness. The stools, on examination, contained very numerous ova of ascaris lumbricoides, the characters of which are well known and easily recognizable (see Figure 2); a few ova also of trichocephalus dispar.

For a few days nothing was given but a mixture containing carbonate of soda and quassia, and full diet allowed.

23rd.—Without other treatment, and no worms having come away, she was reported better, free from pain, and quite cheerful. She was ordered a draught, containing half-a-drachm of oil of male fern, to be followed by castor oil. No worms were expelled.

26th.—Given 10 grains of scammony, which purged freely but did not bring away any worms.

March 2.—Given 15 grains of scammony, which were equally inefficacious.

4th.—A mixture of quassia and senna was given every two hours for eight days, without bringing away any worm.

19th.—A draught, containing ʒss. of spirit of turpentine and ʒss. of castor oil, was given. Passed no worm till the 22nd, when one was passed with a costive motion, and another on the 23rd.

On the 26th, the stools examined still contained abundant ova of the worm, and the draught was repeated, but no worm was passed till the 29th; this, after being washed in cold water by the nurse, was put into tepid water, and watched; it was seen to move very distinctly, though slowly.

April 1.—As ova were still present in the stools, and to ascertain whether the castor oil or the turpentine was the efficient agent, a dose of castor oil alone was ordered; but no worms were passed.

4th.—ʒss. of spirit of turpentine was given alone.

7th.—A dead worm was passed.

Finding on the 9th that still there were numerous ova in

the stools, a draught was ordered for the next morning, of turpentine and castor-oil.

10th.—Two worms were passed in a loose stool; both worms appeared dead.

14th.—Ova being still present in the stools, the draught was repeated. No result.

20th.—A worm was found in the stool; the draught repeated. After this draught no worms passed, but the ova were still abundant in the fæces.

26th.—An electuary was given, a teaspoonful every four hours, formed by mixing syrup with Dolichos pruriens to a proper consistence.

30th. — Being sick and nauseated, the medicine was omitted.

May 1.—Felt quite well.

2nd.—Passed three worms.

3rd.—Was given ʒj. of castor oil, and passed a worm in the evening.

4th.—Passed a worm, which appeared to be dead.

7th.—Passed another worm.

12th.—Another worm. As the ova were still present in the stools, the dolichos electuary was repeated, and continued eight days.

25th.—Passed a worm.

27th.—Another.

29th.—Another.

June 4.—On careful examination, no ova could be found in the stools.

5th.—Discharged cured.

Remarks.—Both the above recorded cases illustrate a fact deserving of attention, and bearing strongly upon diagnosis, viz., that the usual symptoms, themselves sufficiently vague and indefinite, may be absent, while worms cestoid or nematoid are present, and that the person may even for a time be quite free from any uneasiness whatever while infested with large numbers of the Ascaris lumbricoides. The value of this method of diagnosis to the treatment is particularly shown; for I think it will be admitted that most practitioners having suspected the presence of round worm and having given, as was done in this case, for some time, a violent drastic cathartic without result, would have concluded that no worms were present, as I certainly should have done but for the evidence afforded by the stools. Then, when six or seven worms had been expelled by the use of turpentine, it would have been considered that all were come away when the same agents ceased to bring away more. The examination of the stools alone militated against this erroneous conclusion, and dolichos was given till no ova could be found in the stools, when, I think, a rational proof existed that the patient was cured.

The value of different modes of treatment can also be more accurately estimated when we are thus furnished with a more exact measure of the amount of disease, if such an expression may here be admitted; and the case above given shows a great superiority of the dolichos over every other kind of vermifuge employed, at least for Ascaris lumbricoides, for it can be administered in a very palatable and agreeable form to children without producing any important disagreeable effects.

Turpentine seems also worthy of more confidence in the expulsion of round worm than has generally been supposed, its use having, so far as I am aware, been limited to tapeworms; while drastic cathartics, on which we have generally relied for the expulsion of this entozoon, are the least valuable as vermifuges, if it be allowable to conclude from this case alone.

It is a singular fact, and one not easily explicable, but it will be seen by noticing the dates given in the case, that the worms were generally expelled two or three days after the dose of medicine was given, and continued to be expelled at times for twelve days after the dolichos had been omitted.

It would almost seem as if they voluntarily left their usual habitat after anything had for a time altered its normal condition. I attended a case of typhoid fever (the patient residing close to the child Simpson), in which, towards the close of the case, eight round worms were passed: these had not passed during the activity of the diarrhœa, but after it had ceased.

I may take this opportunity to remark upon a peculiar alteration which the ovum of Ascaris lumbricoides undergoes in the fæces; it becomes more deeply tinged yellowish brown, and is gradually more and more roughly nodulated on the surface, and sometimes more rounded in form. It is easy to convince oneself that these changed ova are identical with the peculiar bodies figured by Brittain and Swayne as cholera corpuscles, or rather, with one of the varied objects which were at first grouped under that appellation. Compare the Fig. 2B here given, with Fig. A, given by Dr. Swayne in the *Lancet*, Vol. II., 1849, p. 532.

It is rather singular that the numerous and competent observers who at that time examined this object should have failed to recognize he ovum of the Ascaris lumbricoides. The Rev. M. J. Berkeley, however, in *Medical Gazette*, 1849, p. 1034, in the course of a very close examination of the object in question, appears to have had this possibility in view; as he says: "As it would seem that no ova of entozoa are known which can be reconciled with them." It is the more interesting and desirable to decide on the true nature of the said bodies, as they alone, of all the various corpuscles figured as peculiar to cholera, have hitherto failed to receive a satisfactory explanation.

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING MARCH AND APRIL.

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

LITHOTOMY.

Number of cases, 5; recovered, 4; died, 1.

Case 1.—St George's: Mr. Hawkins.—A boy, aged 14, in good health. Stone as large as a chesnut. Recovered well. *Case* 2.—The London: Mr. Curling.—A boy, aged 7, in fair health. The stone weighed half an ounce. Recovered well. *Case* 3.—The Metropolitan Free: Mr. Hutchinson.—A boy, aged 3, in good health. The stone was lithic acid, and the size of a flattened marble. Recovered well. *Case* 4.—St. Thomas's: Mr. Solly.—A lad, aged 18, the subject of stone for probably fifteen years, but never examined previous to admission. A lithic acid stone, weighing two ounces and a-half, was removed. Recovered well. *Case* 5.—St. Bartholomew's: Mr. Skey.—A boy, in poor health, aged nearly 3, who had suffered very severely from stone. The usual operation was performed, but some difficulty was encountered in reaching the bladder. A mulberry calculus, the size of a small walnut, was removed. The child never rallied well from the shock of the operation, and died on the third day. The autopsy showed no material lesions.

REMOVAL OF CALCULUS IMPACTED IN THE URETHRA.

The Metropolitan Free: Mr. Hutchinson.—A man, aged 40, the subject of stricture from boyhood. Perineal section had been performed five weeks before, and at the time of the operation the existence of a stone was suspected, but could not be verified. Subsequently a calculus, the size of half a cherry, escaped from the bladder and got impacted in the bulbous tract. The fistula, which still existed, was freely enlarged, and the stone removed by forceps. Recovered well. (See Operations for Stricture, Case 2.)

LITHOTRITY.

The London: Mr. Luke.—A female child, aged 8, symptoms of stone two years. The lithotrite was used, and the stone crushed. During the same day and the day following, the fragments of mulberry stone, probably about the size of a bean, came away, and the child was thenceforth well in every respect.

HERNIOTOMY.

Number of cases, 18; recovered, 14; died, 4.

Case 1.—The London: Mr. Ward.—A man, aged 29, for fifteen years liable to a congenital hernia. Strangulation five hours; symptoms very severe. The sac was opened, and about nine inches of small intestine returned. The bowel was

extremely congested, and showed in one part a patch of ecchymosis. Opiate treatment: spontaneous action of bowels on third day. Recovery. *Case* 2.—The London: Mr. Ward.—A man, aged 48; hernia femoral; recent; the size of a hen's egg; strangulated 50 hours. Partial reduction had been effected by the taxis, but the sudden subsidence of pain induced the suspicion that the gut had ruptured, and it was thought best to operate. On opening the sac it was found to contain omentum only. Acute peritonitis existed at the time. Opiate treatment. Recovery. *Case* 3.—The London: Mr. Ward.—A man, aged 40; hernia, scrotal, of very large size, and strangulated seven days. The sac having been opened, a coil of small intestine was found adherent to it. The adhesions were carefully broken down, and reduction effected. Much tinged serum escaped. Opiate treatment, with enemata on the fourth day. Recovery. *Case* 4.—The London: Mr. Gowlland.—A woman, aged 42; hernia femoral, strangulated 48 hours: sac not opened. Opiate treatment. Recovery. *Case* 5.—The London: Mr. Gowlland.—A man, aged 31; hernia inguinal, very large, strangulated 11 hours; sac opened. The man was intoxicated at the time of operation, and had been so for three days previously. Opiate treatment. Recovered. *Case* 6.—Guy's: Mr. Birkett.—A woman, aged 48; hernia femoral, strangulated 18 hours, sac not opened. Acute peritonitis followed, and was treated by leeches and opium. Recovery. *Case* 7.—St. George's: Mr. Johnson.—A man, aged 58; hernia congenital, of large size, and strangulated three hours. The sac was opened. Recovery. *Case* 8.—St. George's: Mr. Tatum.—A woman, aged 40; hernia, oblique inguinal, of small size, strangulated one day. The sac was opened, and the contained bowel was found intensely congested and coated with lymph. Recovery. *Case* 9.—St. George's: Mr. Hawkins: A woman, aged 39; hernia femoral, of rather large size, strangulated four days. Sac opened. Recovered. *Case* 10.—St. George's: Mr. Cutler.—A man, aged 65, very feeble; hernia femoral, very large indeed, strangulated three days. The sac was opened and found to contain a large coil of gut, much bloody serum, and a mass of adherent omentum; the latter was left *in situ*. The gut was congested, but not inflamed. Recovered. *Case* 11.—The Middlesex: Mr. De Morgan.—A woman, aged 48. Hernia femoral, of small size, and, for five years, irreducible. Symptoms of strangulation had existed for three days. The sac was opened, and a small knuckle of adherent intestine separated and returned. Recovered. *Case* 12.—The London: Mr. Adams.—A man, aged 65. Hernia, inguinal, the size of a hen's egg; strangulated nine hours. Sac not opened. Recovered. *Case* 13.—The London: Mr. Critchett.—A man, aged 26. Hernia inguinal, of very large size; strangulated eight hours. The sac was not opened. Recovered without a bad symptom. *Case* 14.—The London: Mr. Critchett.—A woman, aged 60. Hernia femoral; very large; symptoms urgent; strangulation forty hours. Sac not opened. Recovered without a bad symptom. *Case* 15.—University College: Mr. Erichsen.—A woman, aged 43. Hernia femoral; strangulated one week. The sac was opened, and the bowel found gangrenous. Death eight hours after. *Case* 16.—The Middlesex.—Mr. De Morgan. A man, aged 46: hernia inguinal, irreducible for six months. Symptoms of strangulation had existed for three days, and there was great collapse. The sac was opened, and the bowel being found gangrenous, was cut into. Profuse vomiting occurred, and the patient died before he left the theatre. *Case* 17.—St. George's: Mr. Johnson.—A woman, aged 65, admitted in a state of collapse. Hernia femoral, of moderate size; strangulated three days. The sac was opened, and found to contain a considerable mass of thickened sloughy omentum, and a knuckle of intestine. The latter was not actually gangrenous, but was of very dark colour, and had two or three small collections of pus in its coats. The stricture having been freely divided, the omentum was cut away, and the bowel allowed to remain *in situ*. The bowels acted after the operation, and the gut did not give way; but the woman sank exhausted, and died three days afterwards. *Case* 18.—St. Bartholomew's: Mr. Skey.—A man, aged 28, the subject of a large congenital scrotal hernia on the right side. Strangulation had existed about fifty hours, and there were signs of peritonitis. An attempt was made, after laying bare the sac, to reduce without opening it, but during the trial the sac gave way, and about three feet of small intestine, in a very congested state, came out. The coils being held aside, a small rounded aperture was found in the posterior part of the sac, communicating with a second and much smaller sac behind it. This aperture having been carefully enlarged, some coils of healthy bowel contained in the lesser sac were exposed. This lesser sac communicated freely with the abdomen. With some difficulty the whole of the protruded bowel was returned. During the evening, vomiting repeatedly occurred, and he sank into a very low state. Death took place rather suddenly twenty-four hours after the operation. No evidences of peritonitis were found at the autopsy.

TREPHINING, ETC., OF THE SKULL.

Case 1.—Guy's: Mr. Cock.—A boy, aged 6, was admitted insensible, having fallen from a height, and struck his head on some stones. There was very great swelling over the right parietal region, and a small aperture in the skin, from which blood flowed. The scalp having been freely divided, and a large quantity of coagulum cleared away, the skull was found extensively fractured, and a portion of brain-substance lay exposed in the wound. By means of the elevator, the depressed portions were lifted out and removed. There was a considerable rent in the dura mater, and the middle meningeal artery bled very freely. The hæmorrhage was arrested by a compress of sponge. During the operation the boy had regained consciousness. For some days subsequently he did fairly, but subsequently sank from arachnitis, and softening of the brain. Death occurred on the sixteenth day.

Case 2.—Guy's: Mr. Cock.—A woman, aged 33, of careworn and anxious expression. In October last she had a blow on the head, since which she has been subject to loss of memory at times, to impairment of sight and hearing, and occasional attacks of giddiness. On admission there was a fluctuating swelling over the vertex, which, on being punctured, was found to contain pus. There was no history of syphilis. Numbness of the left side of the body having existed for twelve days previously, and the symptoms of brain mischief increasing, Mr. Cock determined to trephine. This was accordingly done. The surface of the bone was found carious, and so uneven as to suggest the idea that a portion had been depressed, but in the part removed there was not sufficient irregularity of the inner table to account for the symptoms. The exposed dura mater appeared granular. The part operated on did well afterwards, and the general symptoms were considerably relieved. About a fortnight later pain extended from the wound to the forehead, and a swelling formed over the latter part, which was subsequently opened. Here, as where trephined, the bone was carious. At the time the patient left the Hospital she was still liable to much pain in the head, and neither of the wounds had healed. Further disease of the bone is suspected.

LIGATURE OF ARTERIES.

St. Bartholomew's: Mr. Lawrence.—A girl, aged 15, under care on account of a pulsating tumour just below the knee, in the outer part of the head of the tibia. Ligature of the femoral artery in Hunter's canal was performed. Severe hæmorrhage followed two weeks afterwards. Death from pyæmia in the fifth week.

AMPUTATIONS.

Number of cases 25; recovered 17; under treatment 2; died 6.

At the Hip-joint.—Case 1.—The London: Mr. Curling.—A woman, aged 40, admitted on account of a large and very rapidly growing tumour on the outer side of the thigh, apparently connected with the bone. Amputation was performed by antero and posterior flaps, the latter being cut first. Very little blood was lost, and the woman made a good recovery.

Of the Thigh.—Case 2.—Guy's: Mr. Hilton.—A lad, aged 16, was admitted, having had his right thigh crushed in a railway accident. He was all but dead from hæmorrhage. Primary amputation at the base of the great trochanter was performed. For three days he remained very feeble, but subsequently he recovered well. *Case* 3.—Guy's: Mr. Cock.—A very feeble girl, aged 15. The left knee was partially anchylosed. Amputation in lower third of thigh. Secondary hæmorrhage occurred, and was followed by a sloughy state of the stump. Recovered. *Case* 4.—The Middlesex: Mr. Shaw.—A girl, aged 12. Amputation on account of a myeloid and fibroplastic tumour, involving the head of the

tibia. Recovery. *Case* 5.—The Middlesex: Mr. Moore.—A man, aged 41, under care on account of diseased knee-joint, of four years' duration. Amputation. Recovery. *Case* 6.—St. George's: Mr. Cutler.—A woman, aged 56, in good health. Amputation on account of malignant ulceration of the leg, of two years' duration. The disease proved to be epithelial cancer. Recovered. *Case* 7.—The London: Mr. Gowlland.—A man, aged 25, in excellent health. Primary amputation just above the knee, on account of compound fracture. Recovered well. *Case* 8.—The London: Mr. Critchett.—A lad in feeble health, the subject of acute disease of the knee-joint. The disease had existed one year, but had recently become much more acute. Free incisions into the joint had been practised one week before the amputation, after which the lad sank into a very feeble, almost typhoid, state. At the time of the operation he had a dry, brown tongue, and was very weak. Under the free use of stimulants, he made a good recovery. *Case* 9.—St. Bartholomew's: Mr. Stanley.—A girl, aged 15, whose knee-joint had been excised six weeks previously. Profuse suppuration, and a most distorted position of the limb, necessitated amputation. Recovered. (See "Excisions of Joints," *Case* 3.) *Case* 10.—The London: Mr. Gowlland.—A man, aged 21, in good health, admitted on account of compound fractures of both legs. Much blood had been lost. Primary amputation through the right thigh. Well marked symptoms of pyæmia followed, and death took place fourteen days after the operation. Trismus occurred on the day preceding death. At the autopsy one of the wrists which had been swollen was found not to contain pus, nor were there any deposits in the veins of viscera. *Case* 11.—The Middlesex: Mr. Moore.—A boy, aged 12. Amputation, on account of acute disease of the knee-joint, with necrosis of the femur. Death from pyæmia on the twenty-fourth day. The autopsy showed inflammation and suppuration of the veins of the stump, double pleurisy, and numerous deposits of pus in the lungs. *Case* 12.—Guy's: Mr. Cock.—A man, aged 27, in a very feeble state. Amputation, on account of chronic disease of the knee-joint. The stump afterwards sloughed; bed-sores also formed, and symptoms of pneumonia supervened. Death from pyæmia in the sixth week. *Case* 13.—St. Bartholomew's: Mr. Lawrence.—A girl, aged 17, in poor health. Amputation, on account of diseased knee-joint. The stump healed; but the symptoms of pyæmia supervened, and a large abscess formed. Death one month after the operation. The autopsy showed a large collection of matter between the periosteum and bone. *Case* 14.—University College: Mr. Erichsen.—A man, aged 26, of the hæmorrhagic diathesis. Amputation, on account of gangrene following an enormous extravasation of blood into the calf. Thirty-eight ligatures were required. Death from collapse followed.

Of the Leg.—*Case* 15.—The London: Mr. Luke.—A man, aged 26. Primary amputation in lower third of leg on account of crushed foot. Erysipelas followed, the flaps sloughed, and the bones protruded. He is now doing well, but the ends of the bones will have to exfoliate. *Case* 16.—Guy's: Mr. Hilton.—A man, aged 31. Primary amputation in upper third of leg on account of compound fracture. Recovered. *Case* 17.—St. Bartholomew's: Mr. Lawrence.—A woman, aged 40. Amputation just below the knee on account of gangrene, probably consequent on some disease of the arteries. Death four weeks after the operation. No autopsy.

Of the Foot.—*Case* 18.—The Middlesex: Mr. Moore. A man, aged 26. Primary amputation through the metatarsal bones on account of gunshot wound. Recovery. *Case* 19.—Guy's: Mr. Birkett.—A man, aged 29, had his foot crushed by a barrel of beer falling on it. Sloughing of the parts on the dorsum followed, and secondary amputation through the bases of the metatarsal bones was performed as soon as the sore had assumed a healthy appearance (one month after the injury.) All the metatarsal bones were found to have been fractured. Recovered well. *Case* 20.—University College: Mr. Erichsen.—A man, aged 60, the subject of old-standing disease of the tarsus. Chopart's amputation. Recovery. Secondary hæmorrhage from the posterior tibial occurred, consequent on erysipelas up the leg, and required the actual cautery for its arrest.

Of the Upper Extremity.—*Case* 21.—The Middlesex: Mr. Shaw.—A man, aged 59, under care on account of disease of the wrist-joint, consequent on compound fracture six weeks before. Amputation through fore-arm. Recovery. *Case* 22.—St. George's: Mr. Cutler.—A man, aged 42, in good health. Primary amputation through the upper arm, on account of compound fracture and dislocation of the elbow-joint. Recovery. *Case* 23.—The Dreadnought: Mr. Busk.—A man, aged 23. Secondary amputation of the shoulder-joint four days after a severe compound fracture of the humerus, on which mortification had ensued. There were other injuries inflicted. Under treatment. *Case* 24.—Guy's: Mr. Poland.—A lad, aged 15, in good health. Primary amputation of the hand just above the carpal bones, on account of compound fracture. Recovery. *Case* 25.—Guy's: Mr. Callaway. A lad, aged 15, in good health, admitted on account of crushed hand. Phlegmonous erysipelas followed, and amputation through the fore-arm was performed six weeks after the accident. Recovered.

EXCISION OF JOINTS.

Case 1.—University College: Mr. Erichsen.—A man, aged 21, for three years the subject of diseased knee-joint. The joint was opened by the usual elliptical incision, and the articular extremities of both bones sawn away, the patella being left. Doing well.

Case 2.—The Westminster: Mr. Holt.—A woman, aged 46, the subject of diseased knee-joint for three years. She was hectic, and much reduced by long-continued suppuration. Numerous sinuses existed. There was distinct grating of the bones on motion; the knee was flexed, but there was no anchylosis. The elliptical incision was made, and the ends of the bones sawn away. The diseased part of the patella was gouged out, and the rest of the bone allowed to remain. All the cartilages were found to have been removed, and the crucial ligaments had also been destroyed. The hamstring-tendons were divided; a sinus already existing into the popliteal space, no other opening was needed. Not the least difficulty was encountered afterwards in keeping the limb at rest in the straight position. Profuse suppuration followed, attended with diarrhœa and some cough; a large bedsore also formed, and from the combined influence of these the patient sank. Death took place on the fifteenth day. No rigor had occurred. At the autopsy, the granulations about the wound seemed healthy, but the cut surfaces of the bones were of a greenish colour and quite wanting in evidences of reparative action. No purulent deposits were found in the body.

Case 3.—St. Bartholomew's: Mr. Stanley.—A girl, aged 15, in delicate health, for twelve years the subject of disease of the left knee-joint. She had been able to walk upon the affected limb until about sixteen months before, when a fresh inflammation occurred, and since which the leg had been retracted and quite useless. Issues over the part, and confinement of the limb in splints, had been tried without benefit. On March 29, Mr. Stanley performed excision of the joint. The usual elliptical incision was practised, and the ends of the bones sawn away. The patella was allowed to remain and the hamstring tendons were not divided. Great retraction followed the operation, and it was found impossible to keep the parts in proper position. The suppuration was very profuse, but the girl kept up fairly. The displacement was so great, that it was at length determined to amputate. Circular amputation through the lower third of the thigh was performed on April 10, (six weeks after the excision,) and she afterwards did remarkably well. Recovered.

Case 4.—St. George's: Mr. Cutler.—A boy, aged 16, the subject of chronic disease of the knee-joint. The joint was exposed in the usual way, and the end of the femur sawn off. The tibia and patella were but very slightly affected, and the carious spots in them having been gouged away, they were not interfered with further. Under treatment.

Case 5.—King's College: Mr. Fergusson.—A woman, aged 18, under care on account of diseased knee-joint, of two years' duration. No benefit having been obtained by a six weeks' treatment by blisters and rest, excision of the joint was performed. An H-shaped incision was practised, and three-quarters of an inch in length from the femur, and an inch from the tibia, were sawn away. The carious portion of the patella was removed by the gouge. The synovial membrane of the joint was found rough and thickened; the cartilage was separated from the surface of the tibia, and an abscess extended an inch and a-half into the centre of that bone. The limb was placed in the extended position on a straight iron splint. The patient suffered somewhat severely from the shock, but afterwards went on most satisfactorily. The

greater part of the wound is now healed, and the bones are consolidating.

Case 6.—King's College: Mr. Fergusson.—A man, aged 21, under care on account of diseased carpus. An incision was made over the part, and some fragments of carious bone removed. Under treatment.

Case 7.—The Middlesex: Mr. Shaw.—A man, aged 18, for six months the subject of diseased hip-joint. The head of the femur was dislocated on to the dorsum ilii, and lay immediately beneath the skin, keeping up much irritation. Excision of the head and neck of the bone was performed. The acetabalum was found to be denuded of cartilage, but not in a state of active disease. No difficulty was afterwards encountered in keeping the thigh in position. The patient's health has considerably improved since the operation, but the wound still discharges. (The part removed was shown at a recent meeting of the Pathological Society. *See* report, *Med. T. and G.*, p. 395.)

Case 8.—The Middlesex: Mr. Moore.—A woman, aged 31, for two years the subject of diseased elbow-joint. The disease had begun without known cause as stiffness, soon afterwards followed by abscesses. Excision of the joint was performed. A V-shaped portion was cut away from the humerus, so as to include almost the whole articulating surface, but to leave the condyles. The extremities of the radius and ulna were cut away. A few days after the operation, a slight attack of erysipelas occurred, but it soon subsided, and healing went on well until, about six weeks later, a fresh attack of unhealthy inflammation occurred. Since the last there has been profuse suppuration. Under treatment.

Case 9.—University College: Mr. Erichsen.—A child, aged 5, under care on account of disease of the ulna and elbow-joint. Excision of the joint. Under treatment.

Case 10.—Guy's: Mr. Cock.—A boy, aged 12, of strumous constitution, thin, and cachectic. He had long been the subject of diseased tarsus, and great thickening of the soft parts around the os calcis existed, several sinuses leading down to denuded bone. Mr. Cock made a free incision over the outer part of the bone, and took out almost the whole of it, in a necrosed state. The dead portion was quite detached, and was surrounded by a good shell of new bone. But little flattening of the heel has resulted, and the parts are now almost healed.

OPERATIONS FOR THE REMOVAL OF NECROSED BONE.

Operations for the removal of sequestra from necrosis of long bones have been performed in seven cases. In three the lower jaw was the affected bone, in one the femur, in one the ilium, in one the radius, and in one the tibia. In none did any ill-consequences result.

OPERATIONS FOR URETHRAL STRICTURE.

Case 1.—St. Bartholomew's: Mr. Paget.—A man, of middle age, under care on account of stricture, the result of gonorrhœa seventeen years ago. For six years past the stricture had caused much suffering, and there were three or four fistulous passages in the scrotum, through which urine escaped. With some difficulty a No. 1 grooved staff was passed through the stricture, and on it perineal section was performed. A silver catheter was afterwards retained. The case did well. The wound is now nearly healed, and only a little urine occasionally escapes from one of the fistulous passages.

Case 2.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 40, the subject of stricture for thirty-four years, consequent originally on a blow, and at different periods since much aggravated by attacks of gonorrhœa. He had been under treatment in many Hospitals, and once or twice had very nearly died from abscesses in the perinæum and extravasation of urine. No instrument had ever been got into the bladder since 1849, although he had in the interval had repeated attempts made. He was admitted under Mr. Hutchinson's care on April 6, suffering from retention, and after most patient trials it was found impracticable to introduce the smallest catheter. Under the influence of opium a partial relaxation of the stricture took place, and some urine flowed. On the next day, the bladder being still full, he was put under chloroform, and a No. ½ Syme's staff having been forced through the stricture, perineal section was performed. A No. 8 silver catheter was subsequently retained for twelve hours. All went on well, and he left the Hospital three weeks after, passing urine in a full stream, the wound in the perinæum being, however, not quite closed. A fortnight later a calculus escaped from the bladder, and got impacted just anterior to the prostate, for the removal of which a rather free incision in the perinæum had to be made. The man has now quite regained his health, and the wound is very nearly healed.

Case 3.—Guy's: Mr. Birkett.—A boy, aged 14, was admitted in January, having received a blow on the perinæum, by which, as was proved by an incision, the urethra had been torn completely across. After recovery nearly the whole of the urine passed by the perineal fistula which resulted. On April 15 Mr. Birkett attempted to restore the continuity of the canal by introducing a catheter down to the contracted part, and having divided the latter, passing it on into the bladder. The instrument was retained for some days. The urine now mostly passes by the urethra, but the perineal wound is not yet closed.

Case 4.—The Marylebone: Mr. Henry Thompson.—A man, aged 44, who had been under much Hospital treatment on account of a stricture of twenty years' standing. Dilatation had been frequently resorted to, and with only very temporary benefit. A No. 2 Syme's staff having been introduced, the stricture was freely divided from the perinæum. A No. 10 catheter was retained for forty-eight hours. A month after the operation a No. 11 could be passed with ease, and the wound subsequently healed soundly. He passes urine in a good stream, and has quite regained his health.

Case 5.—King's College: Mr. Fergusson.—A man, aged 23: the stricture of eleven years' duration, and the result of a blow. Perineal section was performed. Under treatment.

Case 6.—"The Dreadnought:" Mr. Busk.—A man, aged 27, suffering from numerous urinary fistulæ, consequent on an impassable stricture of four years' duration. The stricture was divided by incision from the perinæum (without a staff), and a catheter passed into the bladder. Under treatment.

Case 7.—University College: Mr. Erichsen.—A man, aged 35, the subject of several old fistulæ and a very tight stricture. Perineal section was performed. Doing well.

Case 8.—Guy's: Mr. Cock.—A man, aged 28, in poor health: stricture of six years' duration, and for a long time impassable. The patient being on the operating table, and under the influence of chloroform, Mr. Cock succeeded in introducing a small grooved staff, on which perineal section was at once performed. A No. 7 elastic catheter was retained for two days, and afterwards passed occasionally. The wound healed quickly, and he now passes urine in a good stream; there appears, however, to be a urethral pouch just below the diseased tract in which urine accumulates.

Case 9.—Guy's: Mr. Cock.—A man, aged 54, for twenty-five years the subject of stricture. Extensive sloughing had destroyed a considerable portion of the urethra, and numerous fistulæ remained. No instrument could be introduced, and the operation performed consisted in opening the urethra behind the seat of disease. The wound remains open. The man is somewhat improved in health.

PUNCTURE OF THE BLADDER.

Case 1.—Guy's: Mr. Birkett.—A strong, healthy man, aged 80, admitted with retention of urine of two days' standing. All attempts at catheterism failed. Opium was tried; but the symptoms being urgent there was no time for delay. Puncture of the bladder by the rectum was performed, and about three pints of dark, turbid urine drawn off. The canula got displaced forty hours after its introduction, and was removed. For a few days urine continued to flow by the wound, but subsequently the natural channel became patent, and the wound closed. He left the Hospital well one month after admission.

Case 2.—St. Bartholomew's: Mr. Skey.—A man, aged 32, was admitted, almost dying, from retention of urine. He had suffered from stricture, consequent on a blow, since the age of 9. Catheterism being impracticable the bladder was punctured by the rectum. About two pints came away at the time, but none flowed afterwards. Death took place the next day. The autopsy showed the bladder almost full of coagula. The kidneys were extensively atrophied from old disease. A long tract of the urethra was all but impervious.

NOTES AND QUERIES.

He that questioneth much shall learn much.—*Bacon.*

No. 111.—Climate of Canada.

[*To the Editor of the Medical Times and Gazette.*]

Sir,—May I presume that one of your many readers will be able from personal experience to inform me of the fitness of the climate of Canada for rather a delicate family, prone to pulmonary affections. My fear is, that the winter severity will be fraught with mischief, although a dear but unprofessional friend assures me that the climate is as salubrious as in England. I am, &c. Your Reader.

No. 112.—Addington, Monsey, and Howarth.

Sir,—I have just read the following anecdotes in the "Table-talk of Samuel Rogers;" perhaps some of your older readers might be able to afford interesting information respecting the three Medical worthies who figure in the stories. I only notice the allusion to Addington, as I was not aware before that the founder of the Sidmouth family was a doctor :—

"During his boyhood, Pitt was very weakly, and his physician, Addington (Lord Sidmouth's father) ordered him to take port wine in large quantities; the consequence was, that, when he grew up, he could not do without it."

"That odd being, Dr. Monsey, Physician to the Royal Hospital, Chelsea, used to hide his bank-notes in various holes and corners of his house. One evening, before going out, he carefully deposited a bundle of them among the coals in the parlour grate, where the fire was ready for lighting. Presently his housekeeper came into the parlour with some of her female friends, to have a comfortable cup of tea, and she was in the act of lighting the fire when the Doctor luckily returned, and rescued his notes. A friend of mine, who had been intimate with Monsey, assured me that this was fact."

"Humphrey Howarth, the Surgeon, was called out, and made his appearance in the field stark naked, to the astonishment of the challenger, who asked him what he meant. 'I know,' said Howarth, 'that if any part of the clothing is carried into the body by a gun-shot wound, festering ensues; and, therefore, I have met you thus.' His antagonist declared that fighting with a man *in puris naturalibus* would be quite ridiculous; and, accordingly, they parted without further discussion." I am, &c. First Class Staff.

Army and Navy Club, Thursday.

No. 113.—"Cure of Ruptures."

Sir,—In Willis's Current Notes for April is an account of Exchequer payments from March 25, 1721, to March 25, 1725, and among them there is the following :—

"To Dr. Thomas Renton for making known his art, skill, and mystery in curing ruptures, £5000."

Is there any account of Dr. Renton, or did he publish his practice? I am, &c. H. J.

No. 114.—Chloroform.

Sir,—The following case occurred to me a short time ago, and I think it might be interesting to some of your readers :—

A poor woman, aged 55, residing at Bishopsgate, asked my advice about her knee, which, on examination (by Mr. Holden and myself,) proved to be affected with ulceration of the cartilages covering the articular surfaces of the femur, tibia, and patella; there was distinct fluctuation on the inner side of the joint, which was much swollen, and presented the usual appearance of pus within the joint. Her constitution was rapidly declining from the absorption of pus, and the only chance for her recovery was by getting rid of the pus by an artificial opening or amputation, the former of which she was willing to undergo under the influence of chloroform. I accordingly procured some chloroform, (from wholesale Druggists, from whom I have always obtained chloroform which I could depend upon,) and administered it ʒj. by ʒj. until the patient had inhaled ʒj., after which she answered my questions as though she had not inhaled any, and was quite conscious of pain. The pulse, however, was somewhat accelerated, and she complained of headache and a feeling of nausea. By her wish I deferred giving her any more till the following morning, when I gave her ʒix. with the same unhappy results (using Fergusson's inhaler.) While she was quite sensible, I made a puncture into the knee-joint, and there escaped a small quantity of pus, ʒij., and about double that quantity of blood. The operation gave great relief, but the patient ultimately sank from dysentery. I should very much like to know if the same quantity of chloroform is often inhaled with the same results, and the reason of its failure. I am, &c.

St. Bartholomew's Hospital. E. W. Witten, M.R.C.S.E.

Medical Times & Gazette.

SATURDAY, JUNE 14.

MORTALITY IN THE FRENCH ARMY.

It has been our lot, on many occasions, to show that the chances of war are far less fatal to the soldier than the diseases he encounters when on foreign service. The sanitary history of the French Army of the East during the late campaign in the Crimea, is full of facts which confirm the truth of this proposition in a manner so frightful and astounding that we have long doubted the accuracy of the accounts which have reached us from week to week; and it is only by the accumulated testimony of eye-witnesses, and the reports of Medical Officers high in the French Service, that we have been able to admit the possibility of a rate of mortality among our allies so unprecedented as almost to exceed belief. For the truth of the following statements, however, we have the authority of Medical Officers both in our own and the French Service, and have permission to name them if need be. They are not only interesting in themselves, but additionally so, as the facts have been studiously concealed by the French Government, and are now made known for the first time in this country.

1. There were fourteen French Hospitals in the Bosphorus up to the end of March. Since then three others have been added. The following is a copy of an official return of the patients treated in all the Hospitals in January, February, and March, 1856 :—

January	13,520
February	21,309
March	18,167

2. During the ten days ending on the 20th of March, 1009 *patients died*; and during the following ten days, 948 *patients died*, in these Hospitals. The number of sick under treatment for all diseases on the 20th of March was 11,366, and on the 30th, 9763.

3. The aggregate loss by death from sickness (nine-tenths being from typhus) in the French Hospitals on the Bosphorus exceeded 10,000 during the first quarter of the present year. The daily mortality in twelve of these Hospitals in January and February, ranged up to 240.

4. From the 1st of January to the 17th of March, when the transport of typhus cases from the Crimea was discontinued authoritatively, more than 5000 deaths occurred on board French transports and men-of-war, between the Crimea and the Bosphorus.

5. In the Crimea there were 14 Field Hospitals, or *Ambulances*, during the same period, each containing from 800 to 1100 sick. The deaths in each varied from 15 to 20 daily. Thus the aggregate loss by death from disease in these Hospitals during this period exceeded 19,000, and is believed to have been very little under 25,000.

6. It is *known* that more than *thirty-four thousand* French soldiers of the Army of the East died from disease during the months of January, February, and March, 1856. It is *believed*

by those able to judge, that those deaths exceeded *forty thousand.*

7. Sixty-four French Surgeons have died in the Crimea and on the Bosphorus since last November. Of 362 Surgeons of all ranks who have served with the French Army since its landing in Gallipoli in the autumn of 1854 to April 1856, 72 have fallen victims to typhus alone.

8. On the 15th of March, 1856, there were, in the Officers' Hospital at Constantinople, 31 Surgeons in different stages of typhus, and only one combatant officer.

9. Of 840 Hospital orderlies and attendants, employed in the sixty days of January and February, 603 were attacked by typhus when on service.

Having once become convinced that such statements as the above are really true, we naturally ask, How is it that such a state of things—so far worse than our own horrors at Scutari, at the hurried outset of the campaign—should have been permitted by a great nation, when full time had been afforded for the completion of sanitary protection against preventible disease? On whom does the responsibility rest? Why should typhus have arisen in the French camp when our neighbouring camp was free? Why did it spread so awfully after it had originated?

We cannot pretend to answer these questions satisfactorily within the limits of a leading article; but a few remarks on the state of the Camp, of the Ambulances, of the Transports, of the Hospitals on the Bosphorus, and of the French Medical Service, may possibly throw some light on the gloomy picture, and educe good from evil, by pointing out the way to prevent such loss for the future.

The condition of the French soldier in camp sufficiently accounts for the *origin* of the epidemic. He was crowded in tents or huts, imperfectly warmed and insufficiently ventilated, upon ground soddened by the products of animal and vegetable decomposition. He was attenuated by want of sufficient food. He was affected by scurvy from the *quality* of the food he did receive. The same causes led to like results with us the year before. We removed them, and our army has been ever since in the highest state of health and efficiency. Our allies continued in our former erroneous path, and lost a fourth of their army in three months.

The condition of the ambulances, transports, and hospitals accounts for the rapid *spread* of the epidemic. The French Surgeons admit that the condition of the places to which the sick were first sent for treatment was horrible. The huts and tents were overcrowded. The only *latrine* was a cask. The beds were the *lits de camp* for two persons. The beds and bedclothes were unchanged for several months. When a patient died, no matter of what disease, his bed was occupied by a fresh arrival. There were no trained attendants. The only nurses were soldiers fit for no other use, and, of course, unfit for the office. The duties of night-watching were added to those of day-attendance. Patients were, therefore, unavoidably neglected. Typhus affected *nine-tenths of all the patients who passed through the ambulances.* In the transports, the sick were so much overcrowded, so destitute of everything necessary to their condition, that French Medical Officers, when defending the practice of removing the sick from the Crimea, could only say that it was better to take them on board than to leave them dying on the beach at Kamiesch.

Every one who has visited the French Hospitals on the Bosphorus lately, agrees in stating that, with the exception of the Officers' Hospital, they are over-crowded; that the ill-effects of the crowding are not diminished by free ventilation; that the patients themselves, their bedding and clothing, and the floors, walls, and windows of the buildings are offensively dirty; that the bed pans and *latrines* are odious; and that the supply of Medical Officers and their attendants is insufficient.

No one who has witnessed the admirable conduct of the French Army Surgeons can conceal the admiration he feels for the courage, zeal, and self-sacrifice they have shown in the discharge of their duties. But they have been overworked and unsupported. We need give but one instance among many others now before us to prove this. The *Hôpital de Pera* has beds for 2400 sick, besides officers and attendants. On the 1st of March last there were only a few unoccupied beds, left so by the deaths of the preceding twenty-four hours. The Medical staff consisted of 3 first-class and 3 second-class surgeons and four assistants. According to Imperial *ordonnance* there *should have been* 24 qualified surgeons and half this number of clerks and dressers (*sous-aides*). The chief, Dr. Cambay, had sole charge of 203 beds, assisted only by one *aide-major*, and a Civil Surgeon, an Italian. The smallest number under the care of one Surgeon, and he was a junior, was 153. During the morning visit on the 1st of March, from 7 to 9·30 a.m., Dr. Cambay actually dictated the diet and treatment of 196 sick, many of them being acute cases. But our brethren are not only overworked. Their position is such that they cannot enforce obedience to their orders. They are strictly confined to the *art of healing;* in all other matters they are made subordinate to the *Intendance.* They cannot thin or ventilate a crowded ward, or obtain a change of bed or body linen for a patient, or alter a diet scale, without the permission of the Intendant, and, in the words of one of our correspondents, they "manifest a deep feeling of humiliation in pleading insufficiency of hospital supplies for the sick." This gentleman writes, that the influence of the *Intendance* prevented the segregation of the fever cases, and thus led to the spread of the disease by contagion.

In a leading article on the "Civil Element," in our first volume for 1855, we pointed out the evils likely to arise, and some which had already risen, from the subordination of French Medical officers to laymen. The late mortality in the French Army will surely convince the French Emperor that the system which looks so well in print utterly fails in practice, and that if he wishes to maintain an efficient corps of Medical officers for the army, he must make them independent of any control in Medical matters, and reward them by a far higher scale of pay and a far more liberal share of honorary distinctions than they at present receive. If he do this, and do not destroy them by overwork, the Army Surgeons of our Allies will maintain their former high reputation. If he will not be taught by the experience of the past, we can only fear that the next time the system is tried in real service, the results will prove as disastrous as in the months of January, February, and March, 1856. They could hardly be worse.

THE RUGELEY MURDER.

Since our last article on this subject, a most strenuous effort has been made in several quarters to obtain a commutation of the sentence on William Palmer, but we are utterly at a loss to understand the grounds on which it is proposed to assert his innocence. We must repeat an observation which we formerly made, that whatever be the defects in the chemical evidence in this case, the fact of the possession of strychnia by the prisoner remains wholly unexplained, although it would, of course, have been easy to account for the use of the poison, if it had been employed in any legitimate manner.

At the moment we are writing, we believe we are correct in stating, that, unless some explanation be afforded on this point, the sentence of the law will be carried into effect; and when this number of our Journal is in the hands of our

readers, the wretched criminal will probably have ceased to exist.

But, although we entirely disbelieve that any further light can be thrown upon the present case, except by the confession of the culprit, yet for the protection of the public, and for the interests of science, in future cases, we hope that the subject will not be allowed to drop, but that the toxicological investigation of the properties of strychnia will be pursued with greater zeal than before.

We must repeat that, whatever may be thought of the analytical powers of Drs. Taylor and Rees, those gentlemen had not a fair opportunity of detecting the presence of strychnia, because some of the contents of the stomach were lost in the *post-mortem* examination.

It is now stated that a minimum fatal dose of strychnia may be pulverized and given to an animal; and that after the strychnia has been dissolved and absorbed into the system, it may be revealed in a crystalline form in all the tissues. On this point we desire not to commit ourselves by offering a dogmatic opinion, but to express our scepticism as to the truth of the assertion. We shall be most happy to modify our opinions according to the results of observation and experiment—

"Nullius addictus jurare in verba magistri,
Quò me cunque rapit tempestas, deferor hospes."

THE WEEK.

Some conversation took place a few nights since in the House of Lords, upon the subject of the infliction of Capital Punishment on women. The conversation arose in consequence of the respite which was lately granted to two women, convicted of the murder of their illegitimate children under very atrocious circumstances, and concerning which respite no very satisfactory explanation has yet been offered. It would appear that the Law Lords, who usually advise on such matters, are not of opinion that there were sufficient grounds for the respite of the two women in question; but their endeavours to extract from the Government the reason of the extension of the Royal clemency in these particular instances have not been successful. Without adverting to the late cases of the two women convicted of infanticide, in which there may be mitigating features of which the public are not aware, we agree with Lords St. Leonards and Campbell, that it is by no means advisable to abolish the infliction of capital punishment on women, who, as history has often shown, are capable of committing crimes of appalling magnitude, and who, therefore, should be as liable to suffer death as criminals of the other sex.

We understand that a petition has been sent round for signature to the Metropolitan Hospitals, praying for a remission of the duties on foreign wines, on the ground of the great consumption of wine in those establishments, and of the great advantages which would accrue to the patients if they could obtain a cheaper article than at present. It seems that, whether from revolutions in practice or from the change which has taken place in the type of disease, (the latter being, we think, the more probable,) the consumption of wine in the Hospitals is much greater than it formerly was, and the call upon the funds is of course proportionately increased. While admitting the force of the argument to a great extent, we must recollect that the Hospitals are not the only establishments requiring wine, which is also necessary to poor persons not in Hospitals; and we very much fear that the cheapening of wine would have the effect of throwing a great quantity of inferior wine into the market; without great care, therefore, the sick poor would be in a worse plight than before, for a cheap bad article is much more to be condemned than a dear good one.

By the accounts in the daily papers we find that the Police Courts are usefully employing themselves in repressing nuisances which are injurious to the public health, and in punishing the adulterators of foods and drinks. In one case in the City of London, several persons were summoned for overcrowding their habitations in such a manner as to leave an insufficient space for healthy respiration; and the facts having been proved, all the defendants were fined by the sitting Magistrates. In another case, at Bow-street, a wholesale grocer was summoned for having in his possession a quantity of caramel, or burnt sugar, to be employed in the adulteration of coffee. The defendant in this case admitted the employment of caramel, but did not consider it injurious to the coffee. He was fined in the large penalty of £100. These prosecutions will, no doubt, be productive of great benefit to the public, as it is most essential that the poor and the ignorant, in particular, should be protected from the rapacity of persons who, to fill their pockets, would sacrifice, without scruple, the health of the community. The lodging-house keeper who fills his rooms to suffocation, and the tradesman who substitutes, by means of adulteration, a cheap article for a dear one, are alike amenable to the law, and we are glad to find that the local authorities are taking vigorous steps to put a stop to such iniquities.

A ludicrous attempt was made on Tuesday evening, in the House of Commons, by repeated propositions to count out the House, to stifle a debate upon the best method of advancing science. It would appear that very few Members could be found patient enough to listen to such a discussion; but, on the motion being made for counting out the House, a sufficient number rushed in from the lobbies, though they immediately rushed out again as soon as the debate was resumed. This manœuvre was several times repeated; but at last the debate was concluded by the withdrawal of the motion by Mr. Heywood. We do not blame the Government for opposing Mr. Heywood's proposition, which we admit was somewhat vague and indefinite, nor do we censure Lord Palmerston for any indifference towards the interests of science; but we cannot refrain from remarking, that whereas a mere party question would have absorbed the attention of hundreds, a discussion upon a subject which is deeply interesting to every enlightened nation, was very nearly extinguished by the silly expedient of a "count-out."

REVIEWS.

Memoir on the Cholera at Oxford in the Year 1854; *with Considerations Suggested by the Epidemic.* By Henry Wentworth Acland, M.D. London. 1856. Pp. 171.

A very high value must be attached to memoirs such as that we are now called upon to review. They have both a local and a general interest. The authorities of such towns as Oxford are more likely to be impressed with arguments supported by incidents in their own neighbourhood than by occurrences in which they themselves have had no part. On the other hand, the conclusions drawn from observations made generally throughout the kingdom acquire practical force when it is demonstrated that independent inquiries in limited localities tend to the establishment of similar deductions. While, then, the University of Oxford may congratulate itself on the elaborate history of the last epidemic of cholera here presented by one of its most distinguished members, the Profession at large must accept with gratitude this addition to its store of information upon the most fearful scourge to which this country has of late been subjected. Dr. Acland's perseverance, alone, and praiseworthy endeavours to avoid even the smallest error, are deserving of all commendation. He tells us that for obtaining a correct list of the cholera cases, he examined the whole city at least three times, and trifling errors, which would not, indeed, have materially altered the general result, have

required the recasting and recalculating all the Tables thrice also. We scarcely know also which most to admire, whether the love of truth and the scientific earnestness which pervade the whole volume, or the philanthropic and really religious spirit which are manifest in every page; and which, in its practical and working tendency, contrasts favourably with the mawkish, indolent sentimentality which often passes current for religion in the present day, if we are to accept the following as its definition:—"Θρησκεία καθαρὰ καὶ ἀμίαντος παρὰ τῷ Θεῷ καὶ πατρὶ, αὕτη ἐστὶ, ἐπισκέπτεσθαι ὀρφανοὺς καὶ χήρας ἐν τῇ θλίψει αὐτῶν, ἄσπιλον ἑαυτὸν τηρεῖν ἀπὸ τοῦ κόσμου."

317 cases of cholera and choleraic diarrhœa together occurred in the City of Oxford, of which 194 were cases of true cholera, with which, therefore, 7·33 per 1000 of the population were attacked. The deaths from true cholera were 115, or 4·34 per 1000. The deaths were, then, in proportion to the cases, at the rate of 59·28 per cent. The epidemic lasted thirteen weeks, if the last week be included, in which only 1 case and 1 death occurred. In the first three weeks only 3 cases occurred, in the succeeding three 83 cases, in the following three 91 cases; in the next three 16, and only 1 in the last week. The first and last quarters of the epidemic epoch were then occupied by the onset and decline of the disease, while the two intervening quarters showed it at its maximum.

The relation established by Dr. Farr between altitude and cholera mortality in London, was observed also to be maintained in Oxford, the mortality on the lower level having been proportionally three times as great as that of the upper level. It was also found that the parishes in which the population was most dense were those most grievously visited with the disease; but Dr. Acland very justly points out the difficulty there is in fastening upon this, or any one similar sanitary defect, as localizing the severity of the disease, on account of the constancy with which one evil, in moral and physical causes alike, drags others in its train.

Careful meteorological observations were made by Mr. Johnson during the whole period of the epidemic, and the results are embodied in the very complete memoir before us.

We cannot do better, from want of space, to accord full justice to Dr. Acland's Treatise, than to extract his summary of the principal conclusions he considers that he may draw from his inquiries.

"1. The history of both the city and the surrounding district unite in giving weight to the belief in the origin of cholera without communication with other cholera districts.

"2. Both the city and the district give evidence of the occasional communication of the disease from place to place and from person to person.

"3. They both lead us to the conviction that nurses and attendants on cholera patients may enjoy a perfect immunity from contagion.

"4. From the survey of the city we are inclined to believe that this immunity is less probable in proportion as less attention is paid to the destruction of the evacuations.

"5. Contact with the evacuations is, therefore, exceedingly dangerous.

"6. The hypothesis which refers diarrhœa to the state of the atmosphere, and cholera to the metamorphosis of diarrhœa evacuations by and in that atmosphere, derives support from these considerations.

"7. The poison of the evacuations may be conveyed through the air, or by the agency of water.

"8. Therefore poisoned water, though one means of spreading the disease, is not the only means.

"9. For these reasons, and from the facts observed, we may conclude, and do assert, that crowded dwellings and imperfect ventilation are dangerous in the highest degree, during the prevalence of a cholera atmosphere, to those who are subjected to them; just as they are ruinous to health at other times.

"10. We must therefore conclude, that such dwellings and such bad ventilation are dangerous, not only to the persons exposed to them, but to the whole district or town which surrounds them.

"11. A low scale of diet favours diarrhœa, and a better diet tends to check it.

"12. Occupation exercised no marked influence in this district; and, indeed, persons in easy circumstances were more attacked proportionally than night-soil men, who work mostly in the open air.

"13. The lower half of the city was most attacked; but the lives of those who reside in the upper and drained portion are unquestionably endangered by the condition of the lower and undrained parts.

"14. Preparations for epidemic disease should not be left till the disease appears. There should, therefore, be wards in every town, proper for receiving persons suffering from such disease.

"15. Common prudence suggests, that these wards should, in Hospital towns of moderate size, be attached to and managed by the Hospital; that in smaller districts, as the law now stands, they should be under the control of the Guardians; and that, in a few of our largest towns, separate establishments may be founded for the purpose.

"16. Such habitual preparation is, if discreetly continued, less costly than the arrangements necessarily resorted to during the emergency.

"17. All the known conditions for favouring the spread of cholera existed at Oxford; some have been attended to and remedied; some have been neglected, and are not remedied. All known local causes may, by systematic forethought, be either removed from the city, or anticipated, or guarded against."

This summary terminates the first Part of the Memoir. Part II. relates to the "Arrangements made in Oxford during the Epidemic;" and Part III. is "The Lesson of the Epidemic." We heartily recommend our readers, and all interested in the questions this work opens up, to purchase the volume, and give it their careful study.

An Introduction to Entomology; or, Elements of the Natural History of Insects: comprising an account of Noxious and Useful Insects, of their Metamorphoses, Food, Stratagems, Habitations, Societies, Motions, Noises, Hybernation, Instinct, &c. &c. By William Kirby, M.A., F.R.S., F.L.S., and William Spence, Esq., F.R.S., F.L.S. Seventh Edition. Pp. 607. London. 1856.

The natural history of insects forms, perhaps, the most fascinating portion of the studies connected with the structure and peculiarities of the different members of the animal kingdom; and Messrs. Kirby and Spence have contributed more than any other authors to diffuse a knowledge of entomology throughout this country. The original work extended over four volumes, and included the classification of insects; but the present edition contains the whole of the matter of the first two volumes, the copious contents of which are sufficiently indicated in the title-page. Criticism on so well-known a work is superfluous; and we have no doubt that every naturalist, who does not already possess it, will at once order it, as a necessary addition to his library.

A Handbook of Organic Chemistry; for the Use of Students. By William Gregory, M.D., F.R.S.E. Professor of Chemistry in the University of Edinburgh. Fourth Edition. London. 1856.

We are happy to welcome a new edition of Dr. Gregory's Organic Chemistry,—a work which is perhaps the best of its kind in this country. We are the more inclined to write in commendation of the present volume, as we spoke somewhat disparagingly of another work, written by Dr. Gregory, in which he crowded together a history of Inorganic and Organic Chemistry, and in which the Inorganic part was treated so briefly and so transcendentally, as to be quite obscure. In the Handbook of Organic Chemistry now before us, Dr. Gregory enters profoundly and philosophically into this extensive subject; and although the difficulties which the student will be called upon to encounter in mastering the details are unquestionably very great, yet the excellence of the arrangement will do much to disentangle the mazes of a labyrinth of names and objects which, without so excellent a guide, would appear inextricable.

The Coroner for Stafford.—We (*Wolverhampton Chronicle*) understand that the Attorney-General has presented a petition to the Lord Chancellor praying that Mr. W. W. Ward may be "exonerated" from his office as one of the coroners for this county. Mr. Ward will be heard in opposition to the application in the course of a short time.

PROVINCIAL CORRESPONDENCE.

IRELAND.

(From our Dublin Correspondent.)

DUBLIN, JUNE 10, 1856.

THE examination for the annual prize given by the Council of the Apothecaries' Hall, was held on the 5th and 6th ultimo, the subject being the "Chemistry of Respiration," which was arranged under the following heads, two examiners having been appointed to each division:—1. The atmosphere; its chemical constituents, its density, the law of the diffusion of gases, atmospheric elasticity, ozone, meteorology. 2. The constituents of expired air, the conditions which modify them, vegetable respiration, endosmose and exosmose, animal heat. 3. Malaria, deleterious gases, the means of detecting their presence, and of counteracting their effects, eremacausis and ventilation. Six candidates presented themselves. The prize was awarded to Mr. George Curtis, and the certificate for distinguished answering to Mr. James R. Johnson.

The Midwifery Court of Examiners of the Royal College of Surgeons for the ensuing year, was completed by the election on the 30th ult. of Drs. Jameson and Johns. At the annual meeting of the College on the 2nd of June, Dr. R. C. Williams was elected President, and Dr. Hans Irvine, Vice-President, for 1856-7. The new members of the Council are Drs. Banon, Macnamara, and Shannon.

The fourteenth annual meeting of the Medical Benevolent Fund Society of Ireland was held on Monday, June 2, in the Hall of the College of Physicians, Sir Patrick Dun's Hospital, Dr. John Mollan, President of the College, in the Chair. The meetings of the Society are, in consequence of a regulation made at its inauguration, held alternately in the Hall of the College of Physicians and in that of the College of Surgeons. The report of the Society's progress was most favourable, as there was a considerable increase in both the donations and the subscriptions for the present year. All donations are funded, and the funded property of the Society now amounts to nearly £4000. The Branch Associations connected with the Society are seventeen in number. The amount at the disposal of the Society this year was between £400 and £500. The number of applicants was fifty-four. The President, as is customary on such occasions, addressed the meeting, and congratulated the members on the present prosperous state of the Society.

The Bill to explain and amend the Acts relating to Lunatic Asylums in Ireland has been re-introduced by the Chief Secretary and the Attorney-General for Ireland. I am happy to observe that a Superannuation Clause, which I mentioned in a former letter as a desideratum, has been adopted. The following is the clause referred to:—

"IX. It shall be lawful for the Governors, on the recommendation of the Inspectors of Lunatics or one of them, to direct that any officer who is incapable, from age, infirmity of mind or body, or otherwise, to discharge the duties of his office, shall be superannuated, and shall receive such yearly superannuation pension as, upon consideration of all the circumstances of each case, shall appear to be just, not exceeding such proportion of his salary and allowances as herein-after mentioned, (that is to say,) for above fifteen and less than twenty years' service, a pension not exceeding two-thirds of his salary and allowances, and for above twenty years' service a pension not exceeding his salary and allowances."

The present measure gives the appointment of the Manager, Matron, and Physician to the Lord-Lieutenant. It is to be regretted that it is not provided that the first-named officer shall, in every case, be a Medical man, though the necessity for such an arrangement appears to have been felt, as all the existing Superintendents are Physicians. The Bill goes further to confirm all appointments of officers for asylums heretofore made by the Lord-Lieutenant, as well as all salaries of such officers granted by him; and gives to the Lord-Lieutenant and Council the power of determining the number and description of officers for each asylum, and of raising the salaries, if insufficient sums have been allotted them. It also allows lunatics not paupers to be taken into the District Lunatic Asylums by payment.

The Dublin University Bill, now also before Parliament, contains two clauses having reference to the School of Physic in Ireland, namely the fourth, opening the University Professorships of Anatomy, Chemistry, and Botany, to Roman Catholics, and persons not being Graduates in Medicine; and the fifth relieving the same professors from the necessity hitherto imposed on them by law, of delivering clinical lectures. I cannot anticipate that any effectual opposition can be made to these clauses, all of which tend to open the School and enlarge the circle whence the best teachers are to be selected. The successful teaching of Anatomy and Physiology, of Chemistry and of Botany, in no way requires that the teacher should be a Physician, and, in fact, many of the most distinguished men in these departments have not been Physicians. Need I point in illustration to the names of Hunter, Bell, Faraday, Davy, Hooker, and Harvey; and if custom or law require that the Medical student be educated in these branches, it is important that the best teachers of them should not be excluded because they happen not to have a Medical degree.

The first alteration effected by the fourth clause puts the professorships, there enumerated on a footing, in that respect, with the other Professorships in the School of Physic, which are open to Christians of all denominations.

Public attention has, during the past week, been much directed to the illegal practice of the inoculation of small-pox, some fatal cases of the disease, attributed to that cause, having occurred in the neighbourhood of Ballinasloe. I shall revert to this subject in my next.

Mr. Wilde made an interesting communication to the Royal Irish Academy at their meeting on the 26th instant, upon the subject of the early introduction of the potato into Ireland, the period at which its general use began to influence the social condition of the people, and the different failures of that esculent, from the time of the great famine in 1741 to the recent memorable pestilential period which commenced in Ireland in 1845. He enumerated upwards of twenty failures, either partial or complete, of the potato during the last hundred years, describing in detail the effects of each special calamity, the probable cause of the particular epiphytic, or means of destruction, such as frost, floods, and inundations, unseasonable rain, excessive heat and drought,—the curl, the dry gangrene, the black rot, etc., up to the period of the recent mysterious blight which has just passed over the land. He cited a great number of authorities bearing upon the subject of the early use of the potato; and throughout his lengthened communication exhibited an extensive, as well as accurate, knowledge of the various sources of our domestic history.

Incidental to potato food, Mr. Wilde made some remarks on, and exhibited some fine specimens of, that peculiar animal substance generally known as "bog butter," a sort of adipocire frequently found in this country; and he showed, from accounts of analogous substances discovered in other parts of the world, that the extraordinary chemical alteration which this butter has undergone, might have occurred within a comparatively recent period—less than a century.

Many of your readers are, no doubt, aware, that Mr. Wilde has paid a great deal of attention to the subject of food, and published some very interesting articles upon the "Food of the Irish," in the *Dublin University Magazine*. It is understood that the forthcoming and concluding Census volume will contain a Report upon the recent famine in Ireland, with an analysis of its fearful results, in which the potato failure had so ample a share.

GENERAL CORRESPONDENCE.

HERNIAL TAXIS.—UNQUALIFIED PRACTITIONERS.

[To the Editor of the Medical Times and Gazette.]

SIR,—Permit me to recal from limbo my transmitted case on this subject. Its publication may save some lives, and this in the eye of an elderly practitioner is of more moment than many abstruse disquisitions which find a lengthened notice in your periodical as well as in others. The subject was a young woman, who had strangulated femoral hernia nearly forty-eight hours, attended with the usual formidable symptoms. An unqualified man, but of pretty extensive practice, had

seen her several times without discovering the case, treating her by purgatives and leeches, and a blister.

My first efforts at reduction, as the woman lay in bed, were not successful. I then bled her to faintness, and turning her head off the bed on to the floor, but keeping her legs upon the bed, I quickly succeeded in reducing the hernia. Some years ago I saw this plan recommended, but I never saw it done at an Hospital, nor knew it advised by a lecturer, though an inclined plane is spoken about. Once before I succeeded by this method when the usual one in the reclined posture with the knees up had failed. May it not be that the gravity of the intestines in the favourable direction greatly assists in this method of reduction?

Now, Sir, permit me a little further space in your columns for a remark or two on Medical Reform which this case suggests. This poor woman, you know, must have died miserably in a short time had she not passed into other hands than those of this unlicensed practitioner. Can we then allow, with Sir Benjamin Brodie, in your Number for May 10, that any penal enactment to prevent irregular practitioners from interfering with the Medical Profession is a thing altogether out of the question? Is life so cheap as this? He who says, "Life for life," evidently does not hold it cheap. It may be very well for such eminent men as Sir Benjamin to deprecate bolstering up the Profession by an Act of Parliament, thus echoing the sentiment of the all-powerful *Times;* but humbler men take liberty to differ. Boys learn in their grammar, "Ingenuas didicisse fideliter artes emollit mores nec sinit esse feros;" and it is certain that, bad as educated men are, the uneducated man who necessarily begins, and carries on an honourable Profession in a lie, must be worse. Something besides "skill, and conduct, and character," lift men to the top of the tree. When the writer was a young man, living in Hatton-garden, Mr. Taunton opposite trudged on foot, while his next-door neighbour, an impudent quack, rolled in a carriage.

Forbid that in these strictures I should impeach the Baronet, of whose any other than honourable conduct I never heard; but the better the man the more dangerous any erroneous sentiments coming from him. I agree with one of your correspondents last week, that your plan of Medical Reform appears to be the best going; but it would have been improved had a line upon protection been added. It is plain that either you must throw the Profession quite open, like tallow-chandlering, or tinkering, or any trade you like; or else, if you force honourable men to expense, you must protect them after they have incurred it. I am, etc. J. Leigh.

POISONING WITH STRYCHNINE.

[To the Editor of the Medical Times and Gazette.]

Sir,—Perhaps the following notes of a case of poisoning with strychnia, which occurred in my practice some years ago, may appear worthy of a place in your Journal. I am induced to send them solely in consequence of the very great interest at present shown by the Profession in the question of poisoning by that drug. You may rely on their absolute truthfulness.

I am, etc. James Kirk, M.D.

Glasgow, June 5, 1856.

May 10, 1849.—About mid-day I was requested to visit a young man in my neighbourhood who was suspected to be unwell by the people of the house in which he lodged. I went immediately, and found him in bed, but could discover no symptom of disease; he was apparently quite well, but his skin was rather warm and moist, and his pulse fast. I left, saying I could see nothing the matter with him, but that they were to send for me if he got worse. I had barely returned home, when I was recalled, and told that the people of the house had found an open paper on the top of the drawers addressed to his brother, containing a confession that he had taken poison; but the name of the poison was not mentioned. I immediately began to give him sulphate of zinc in warm water, and sent for the nearest Surgeon (Mr. James Campbell, Catton,) desiring him to bring the stomach-pump. Up to this time the patient had shown no symptoms of poisoning, unless the moist skin and quickened pulse be considered as such; but lay quite passive and silent, neither aiding nor hindering the efforts made to save him. We did not, at this time, know the name of the poison, and he did not tell us.

The symptoms of poisoning now speedily began to show themselves, and the first noticed was spasm of the muscles of the neck; when I put my hand under his head to assist him to drink, I could not raise it from the pillow; and we had to feed him with the emetic in spoonfuls. Next, his teeth were so firmly clenched that two men could not separate his jaws. Then his knee-joints became as rigid as bars of iron; and, lastly, his body was raised off the bed, and rested on the head and heels. In addition to these symptoms his pupils were dilated, and he complained of pain at the pit of the stomach. The spasms were slight at first, but speedily became terribly severe; they were not constant, but alternated by intervals of repose. Of course, it was quite impossible to give emetics or introduce the tube of the stomach-pump while his teeth were clenched; but whenever the spasm relaxed it was inserted, and his stomach speedily and thoroughly washed out by Mr. Campbell. We were now joined by Dr. William Young and the Superintendent of the Calton police; and, in answer to the inquiries of the last-named gentleman, I was able to state, that the case was one of poisoning with strychnia; my information was obtained solely from the symptoms. But, knowing that he had taken poison, and seeing the symptoms, it was impossible to resist the conviction that he had taken strychnia. The only other treatment employed was friction over the spine with hot turpentine, suggested by Dr. Young. The patient recovered perfectly, and had no complaint next day, except soreness over the spine from the turpentine. On calling on the Druggist who supplied the poison, he told me the patient was an old acquaintance of his; and that he had given him 6 grains of strychnia to destroy a dog. I believe he took the whole quantity. We sent an account of this case to Dr. Christison, our great authority on poisons, who said, in his answer,—"The recovery is very remarkable." I believe his recovery is to be attributed solely to his having been seen sufficiently early, and to the speedy evacuation of the poison by the stomach-pump: nothing else earthly could have saved him. J. K.

THE PRACTICE OF MIDWIFERY.

[To the Editor of the Medical Times and Gazette.]

Sir,—In a recent number of the Medical Times, May 17, a case is recorded by Horace K. Debenham, Esq., in an article headed "Case of Dropsy of the Amnion," which has engaged my attention. Two cases are recorded by Mr. Debenham, on the first of which I would beg to make a few remarks, and to point out a mistake which he has made. In the case I refer to, Mr. Debenham found an evident narrowing of the pelvis. The head of the child was impacted at the brim—there were local and constitutional symptoms of exhaustion. "The os uteri being sufficiently dilated, therefore, the child, which had been some time dead, was at once extracted with the long forceps."

To apply the long forceps in such a case is far from being in accordance with the rules of Obstetric surgery. The application of the long forceps, under the best circumstances, is admitted by all writers on midwifery to be a hazardous operation

The proper practice in this case, and in similar cases, would be, undoubtedly, to have recourse to craniotomy, instead of extracting the child with the long forceps, when he knew, or might have known, that the child was dead.

I am, &c.

Holyhead. Thomas Hughes, M.R.C.S.

WOUNDS OF JOINTS.

[To the Editor of the Medical Times and Gazette.]

Sir,—Some remarks upon wounds of joints in your Number of May 17, induces me to lay the following case before your readers, should you consider it worth insertion.

A healthy man, aged 30, in chopping wood, made a cut about three inches long on the inner side of his knee. An unqualified Practitioner strapped it up, and restrapped it in about three days. The man then began to walk about, but, within a few hours of doing so, acute pain came on; the next day the joint was much swollen, and erysipelas had set in, to the extent of six inches above and below the wound. At this stage I was called in.

Under the use of a saline, and water-dressing, the limb being

laid upon its outer side on a pillow, the erysipelas, and a good deal of the swelling, subsided; but the wound showed small disposition to heal, synovia constantly welling up, and the man beginning to show unmistakable symptoms of hectic. Now arose the question, whether I was justified in abstaining any longer from amputation. In consultation with my kind neighbour, Dr. Irving Smith, it was agreed that the limb should be entirely bandaged, and immovably fixed in a gutta percha splint, to do away with the possibility of motion, and that we would wait a few days. In a day or two the escape of synovia diminished, granulations sprung up, and in six weeks from my first attendance the wound was healed; the resulting stiffness is fast disappearing. I am, &c.

Ealing, May 20. JOHN GOODCHILD.

TREATMENT OF SMALL-POX PUSTULES.

[To the Editor of the Medical Times and Gazette.]

SIR,—I beg leave to lay before your readers a mode of treating small-pox pustules on the face, which, so far as I have tried it in both varieties of that disease, has been attended with very happy results in preventing the formation of pits and scars.

My plan of treatment consists in the free application of rectified spirits to the pustules at intervals of about four hours from the time they have fully, or nearly fully, developed themselves.

The effect of the application is, the rapid hardening and drying of the contents of the pustules by coagulation of their albumen.

The crusts thus formed become detached after a few days, leaving the subjacent skin smooth and unaltered, covered by a thin but healthy cuticle. The crusts in the confluent form of the disease separate in large masses, and the new cuticle continues to desquamate for many days after the pustule-crusts have disappeared.

I have not yet fully ascertained the effects of the application of the spirit of wine in arresting the development of the pustules, when applied early in the disease; but I hope to have shortly some cases to submit to your readers. I am, &c.

26, Woburn-place. JAMES JONES, M.D. Lond.

MR. GRIFFIN'S MOVEMENT.

[To the Editor of the Medical Times and Gazette.]

SIR,—I would venture to commend to the serious consideraction of the gentlemen so praiseworthily engaged in the "Griffin" movement, a Fable, composed ages ago by an old gentleman who rejoiced in the name of Æsop. It is something like the following:—

Once upon a time the *mice*, feeling themselves aggrieved by the oppressive proceedings of the *cat*, held a public meeting, for the purpose of concerting measures for their protection: they did not like to be eaten alive,—that was the long and the short of it. The meeting was very numerously attended; the speeches were excellent; and the Chairman discharged his duties with remarkable tact and urbanity. It was proposed, seconded, and carried *nem. con.*, that a bell should be tied round the cat's neck, the ringing of which, it was suggested, would, whenever the cat moved, effectually warn the mice, so that they could get out of the way.

The business was done, but a shrewd old mouse all at once effectually quelled their mutual congratulations by putting the pertinent question, "Who 'll *bell* the cat."

As no one volunteered, the meeting at length broke up after a vote of thanks to the Chairman.

And so it will be, depend upon it, with the Griffin movement. The Union Medical Officers are entirely in the power of the Boards of Guardians, and these bodies will no more accede to the enthusiastic and unanimous suggestions of their paid servants, who have most of them solicited, cap in hand, for their election to their under-paid and thankless offices, than would the cat submit to have a bell tied round her neck. It was a wise mouse, however, that suggested getting out of the cat's way. I see no remedy for the grievances complained of but getting out of the way. A general strike would do the business. Single resignations are useless, because others step in immediately.

I was an Union Medical Officer sixteen years, but six years ago I got out of the cat's way. I joined several movements, during my servitude, but they all came to nothing. The Union Doctors are as helpless before the Boards of Guardians as the mice before the cat. There must be a general strike.

I am, &c. ONE WHO HAS GOT OUT OF THE WAY.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 27, 1856.

CÆSAR HAWKINS, Esq., President, in the Chair.

REMARKS ON THE SANITARY CONDITION OF SCOTLAND IN 1855.

By JOHN WEBSTER, M.D., F.R.S.,
Vice-President of the Society, Physician to the Scottish Hospital.

Heretofore, no general registry of deaths existed in Scotland, whereby an accurate notion of its actual mortality could be officially ascertained. However, last year, a system of registration, similar to that pursued in England, having been established, there now seems every prospect that much very valuable sanitary information, respecting the northern portion of Great Britain, will be henceforth procured. The plan adopted supplies a desideratum long felt, promises great beneficial results, and removes the opprobrium that Scotland was one of the few countries in Europe where such official registration was unknown. After several general remarks upon this important subject, and its introduction, Dr. Webster strongly animadverted upon the penal clause, which enacts that any medical practitioner who shall have been in attendance during the last illness, until the patient's decease, must transmit, within fourteen days after death, under the penalty of "fourteen shillings," a certificate of such event to the district-registrar. Having expressed a very decided opinion on this point, he proceeded to detail the chief characteristics of public health recorded throughout Scotland during the twelve months ended last December. In that period, 62,154 deaths were recorded, being in the proportion of about one case of disease terminating fatally to every forty-eight persons then living. This indicated a rather favourable sanitary condition of the general population, and showed the rate of mortality ranged even lower than in England during the parallel season. However, as might be expected, the ratio of deaths, taken in the aggregate, was more or less exceeded by those counties of whose population a large number dwelt in towns, compared with residents of rural districts. Throughout the former localities, having nearly one and a-half million inhabitants, and containing every large town, the per-centage of mortality reached one in 38; whereas, in country parishes with an equal population, the amount of fatal cases was only 1 in 58 residents, thus showing a greater loss of human life from influences connected with urban residences, than occurred elsewhere. In other words, dwellers in towns died at the rate of 261 out of every 10,000; while the rural population only furnished 169 deaths among the same number of persons living in such localities. Speaking generally, the mortality ranged higher during the first part of the year, or cold months, than in the mild seasons of summer and early autumn, but again augmented towards winter, whereby the most healthy period was August and September, the least salubrious being March and February, the total deaths amounting to 7227 in February, contradistinguished to 4047 in September, thus furnishing 3180 less during the latter month, or actually 44 per cent. diminution. The author subsequently entered into numerous interesting statistical details respecting the several quarters of last year, and their respective death-rates by disease; but as any abstract would convey only a brief and imperfect idea of the numerous facts related—all, however, based upon official authority—it may suffice to observe, that the amount of mortality varied considerably in different counties, having been usually greatest on the northern and eastern coasts, while in the south-western, or manufacturing districts, it often proved much more considerable. Notwithstanding the generally healthy condition of Scotland, particularly during the latter half of last year, virulent epidemic attacks of variola and

scarlatina prevailed in different localities. In reference to the former malady, Dr. Webster added this most important observation, viz., in every place where small-pox broke out, and often proved exceedingly fatal, nearly all the deaths by that cause occurred among persons who had not been vaccinated. Indeed, he further said, many individuals appeared to have wofully neglected availing themselves and offspring of the invaluable safeguard of cow-pox, hence throwing much discredit upon all parties. Such conduct, doubtless, originated either in gross ignorance, wilful neglect, or obstinate prejudice against the protective influence of vaccination, and this even in a country much famed for its often intellectually cultivated population. These remarks respecting variola apply in a special manner to such places as Dundee and Greenock, where the above-named loathsome disease has, for some years past, caused nearly double the mortality thereby recorded in English towns, and which, therefore, makes this mortality truly excessive. Various practical questions were afterwards discussed, of which one may be here specially noted—namely, the very large number of infants and children who died under five years of age, the amount being generally greatest in Glasgow, Greenock, and Dundee. In these towns, the death-rate of such parties often exceeded 50 per cent. of the entire mortality. Nay, it was even 61 per cent. during September; and in August the returns show, that actually 64 deaths in every 100 registered were of young persons under five years old. Again, the proportion of still-born infants was likewise considerable. For instance, in Dundee, the ratio, of late years, has ranged 7 and nearly one-fifth per cent.; while, in Glasgow, 7 still-born cases were also reported in 100 births. Compared with other large towns, or even capitals, both in England and on the continent, such casualties do not often attain so high a figure as that recorded in several districts of Scotland. Thus, in London, the proportion is about 3¾ per cent.; in Berlin, it falls under 5 per cent.; at Stockholm, the ratio is less than 4 per 100 births; and, in Paris, it is 7¾ per cent., or almost the same amount as in Dundee. These respective statements are both curious and instructive, while they amply illustrate the very grave question now brought under discussion; and which, therefore, assumes such an important feature as to demand serious attention by the Legislature and philanthropists, with a view to mitigate, if not prevent, if possible, similar calamitous consequences in future. Subsequently, Dr. Webster observes, although the data upon which useful deductions could be fairly inferred, in respect of the special diseases which proved most fatal in particular districts, were yet of rather a limited character, nevertheless, one or two general remarks, he thought, might be legitimately made respecting three of the most populous Scottish towns, in order to show how far several diseases—not epidemics—differed in their mortality during the past season. Thus, in Aberdeen, situated on the east coast, and having about half the population of Edinburgh, pneumonia, bronchitis, and croup all proved much less fatal than either in the modern Athens or in Glasgow, due regard being had to their relative populations. Pneumonia caused twice the proportional number of deaths in Glasgow to those recorded by the same cause in Edinburgh, and near quadruple the ratio reported at Aberdeen. Bronchitis also exhibited analogous results; while croup was five times more mortiferous in Glasgow than in the just-named northern university city; and lastly, apoplexy oftener caused death in the capital than elsewhere; but dropsy seemed twice as fatal at Aberdeen, in reference to its aggregate population. Reviewing all the facts brought forward to illustrate the subject investigated, the author believed he was fully warranted in saying, when concluding his paper, that Glasgow seemed much the most insalubrious locality, where any large collection of animated beings are congregated together, not only in Scotland, but throughout Great Britain, viewed comparatively. Hence it may truly be reckoned an undesirable place of residence, and is, besides, equally remarkable for the brevity of human life so frequently recorded among its mongrel population, however enterprising, charitable, and wealthy many eminent citizens have become, while everywhere numerous indications are displayed of progressive civilization.

Dr. E. Smith inquired what was the cause of the very great mortality in infants?

Dr. Peacock asked why the island of Bute was regarded as so unhealthy in the return?

Dr. Webster remarked that he had received some information respecting the great amount of infant mortality, but it was not conclusive, and therefore he should not make any statement upon that point. The reason why the rate of mortality was so high in the island of Bute resulted from the fact that many invalids went there for health, and died there.

Dr. E. Smith believed that there was no county in England or district on the continent where the mortality was 1 in 23, as stated to be the case in Lanarkshire.

Dr. Webster observed that the high rate of mortality alluded to was confined to the towns in Lanarkshire, and did not include the rural districts, where the deaths were only 1 in 37. The depraved state of the atmosphere in Glasgow, abounding as it did in smoke, and the prevalence of whiskey-drinking, had a great effect in increasing the ratio of deaths.

Dr. Stewart attributed the high mortality of Glasgow to the quantity of carbon constantly suspended in the atmosphere. In a large proportion of the post-mortem examinations he had made when residing in that city, the lungs were found impregnated with carbonaceous matter, not always sufficient to produce organic disease, but frequently the cause of it. Glasgow was, in fact, one of the most unhealthy cities in the world, some of its lanes and alleys being worse than anything seen in St. Giles's in old times.

Dr. Barclay remarked that statisties of mortality should be classed more distinctly with reference to the population being rural or urban; it served only to confuse when we compared the mortality of a country containing large manufacturing towns with one with few or no such towns. What was the mortality of the rural population of Lanarkshire, independent of Glasgow? Was it not less than that of Clackmannanshire?

Dr. Webster observed that the returns to which he had referred were obtained from every parish, but his paper only gave the general returns of the manufacturing and agricultural districts.

Dr. West observed that the question of the ratio of still-born children to a population would depend in a great measure, he thought, upon the fecundity of the parties. Where there was remarkable fertility in a few, the cases of still-born children would be in a greater ratio than when the number of pregnancies was divided among a larger number of mothers, so as not to exceed the average rate of fecundity. Dr. Whitehead, of Manchester, had stated that pregnancies terminating in abortion are generally those occurring after the sixth. His (Dr. West's) experience corroborated this.

Dr. O'Connor inquired whether the great mortality in children below five years, in Glasgow, was due in any way to the prevalence of infanticide?

Dr. Webster replied that there was no coroner's court in Scotland, and he could not answer the question.

Dr. Barclay said the great prevalence of the strumous diathesis in Glasgow was a cause both of death in infancy and of cases of still-birth.

WESTERN MEDICAL AND SURGICAL SOCIETY OF LONDON.

May 2, 1856.

Dr. Wilson, President, in the Chair.

The Annual Meeting was held this evening in the large room, at 165, Sloane-street. The Chair was taken by the President of the Society, Dr. James Arthur Wilson. A large number of members and visitors were present. After the reading and confirmation of the minutes of the last meeting, the reports of the Council and Auditors were read by one of the Honorary Secretaries. It gave a brief survey of the history of the Society from its commencement in 1846, and congratulated the members upon the completion of its tenth year. It referred to the peculiarly social character the Society aimed to preserve, and set forth the success that had attended it in the collection of a valuable standard library, from which members could obtain volumes for home perusal, besides the table of the reading-room being well covered with the periodical literature of the day. The funds, moreover, were represented as being in a flourishing condition, and the whole state of the Society appeared to be as satisfactory as its most sanguine supporters could desire.

The usual complimentary resolutions to the officers having been passed, the President returned thanks. He congratulated the members upon the success that had hitherto attended their efforts, as well as upon the prospects of usefulness yet before

them, remarking as he went upon the several topics contained in the Report, and dwelling especially upon the local character of the Society, and the social pleasure of its meetings. He concluded a speech of much suggestiveness, by an eloquent and forcible appeal to the Profession to maintain its dignity and honour; and, by elevating ourselves individually, insensibly to produce a similar effect upon those around us, as well as by avoiding those littlenesses which prevail and depress us in the eyes of the world, and in the esteem of all good men.

The following gentlemen having been nominated as Officers according to the laws, were now declared to be duly elected:—*President*—Samuel Armstrong Lane, Esq., F.R.C.S., etc. *Vice-Presidents*—Dr. Cumming, Dr. Seaton, Dr. Fuller, Mr. Martyn. *Treasurer*—Dr. Seaton. *Council*—Mr. Cumberbatch, Mr. Ellis, Mr. Leggatt, Mr. Thorn, Mr. Dickinson, Mr. Stevens, Mr. Barnes, Dr. Barclay, Dr. Traquair, Dr. Fincham, Mr. Milner, Dr. Wm. Ogle. *Honorary Secretaries*—Mr. Keen, Dr. Baines. *Auditors*—Mr. Webb, Mr. Hatfield.

The usual conversazione terminated the evening's proceedings.

POOR LAW MEDICAL REFORM ASSOCIATION.

[To the Editor of the Medical Times and Gazette,]

Sir,—I shall feel obliged for space to inform the Union Surgeons, that the Petition to the House of Commons, signed by upwards of one hundred Medical men, has been entrusted by the Committee that met in London this day, to the Right Honourable Sir John Trollope, Bart., who has kindly cousented to take charge of it. Manuscript petitions and memorials. in an abbreviated form, have been transmitted by me to the local Secretaries of each Union connected with the movement, and to the Medical Officer of the house in those Unions which have not joined.

Let these petitions be speedily signed and sent to their respective destinations, and without doubt the condition of the Union Surgeons will, ere long, be considerably inproved.

I am, &c.

London, 10th June, 1856. Richard Griffin.

Kingston Union—A meeting of the Medical Officers of the Kingston Union was held at Dr. Cox's house at Kingston, on the 26th of May; present:—Dr. Cox, of Kingston; Mr. Jepson, of Hampton; Mr. Coleman, of Surbiton; Mr. Kent, of Kingston; Mr. Wellings, of East Moulesey; and Mr. Holberton, of Hampton. The two remaining Officers of the Union, Mr. Fennell, of Wimbledon, and Mr. Izod, of Esher, who were unavoidably absent, have expressed to the Secretary their entire concurrence in the objects of the meeting. Mr. Jepson, as the oldest Medical Officer of the Union, was voted into the chair, and Mr. Holberton was requested to act as Secretary and Treasurer. It was resolved: 1 That the thanks of this meeting be transmitted to Mr. Griffin, for his energetic and disinterested exertions in the cause of Poor Law Medical Reform. 2. That this meeting, without pledging itself to details, approves of the propositions contained in Mr. Griffin's draft of a petition to Parliament, as well as his memorial to the Poor Law Board. 3. That the usual subscription of 5s. be entered into and forwarded to Mr. Griffin, and be repeated quarterly if necessaay. 4. That it is desirable that any of the Medical Officers of this Union, who can make it convenient to attend the General Meeting, on the 30th instant, should do so, and that they be considered a deputation from this meeting. 5. That a copy of these resolutions be sent to Mr. Griffin, and to the Medical Journals.

Henry Jepson, Chairman.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners on the 30th ult.:—

Constant, Fred. G., South-street, Thurloe-square.
Davis, William Haslam, Shelton, Staffordshire.
Goldsbro', Charles F., Welchpool, Montgomeryshire.
Harris, Worsley Poulett, H.E.I.C.S.
Ormerod, Henry, Bristol.
Simpson, Thomas P., Falkner-square, Liverpool.
Warren, John, Gloucester-place, Portman-square.
Wray, David Clipson, March, Cambridgeshire.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 5, 1856:—

Green, Henry, Worcester.
Morris, Edward, Stoke Damerell, Devon.

DEATHS.

Crichton.—June 4, at the Grove, near Sevenoaks, in his 93rd year, Sir Alexander Crichton, Knt., M.D., F.R.S., formerly Physician to H.I.M. Alexander I., Emperor of all the Russias.

Firth.—January 5, at the Western Dispensary, Tothill-street, Mr. William Henry Firth, aged 46, upwards of twenty-two years Apothecary to the above Institution.

Galsworthy. — June 9, William Henry Galsworthy, Surgeon, of George-street, Portman-square, aged 39. M.R.C.S. 1840; L.S.A. 1839.

APPOINTMENT.

Dr. Fairbrother has been unanimously elected Physician to the Bristol Royal Infirmary, vice Dr. Bernard, resigned.

Vacancies.—The election of Dr. Carpenter to the Registrarship of the University of London has made a vacancy in the Examinership of Physiology and Comparative Anatomy, for which Dr. Lionel Beale, Professor of Physiology at King's College, and Mr. T. H. Huxley, Fullerian Professor of Physiology at the Royal Institution, are spoken of as candidates. Dr. Thomas Williams, of Swansea, who is a Graduate and Gold Medallist of the University of London, and who is very favourably known to the Scientific and Medical world by his researches and publications on various branches of Physiology and Comparative Anatomy, is also a Candidate. A vacancy has also occurred in the Examinership in Surgery at the University, arising out of the appointment of Mr. Hodgson, the present Examiner, to the same post in the Royal College of Surgeons of England.

Royal Westminster Ophthalmic Hospital, Charing Cross.—At the Annual Meeting of the Governors, held on Tuesday, June 5, the Marquis of Westminster in the Chair; it was moved that the minutes of the Special Meeting of the Committee of Managing Governors be read:—"The Committee of Managing Governors of this Hospital, deeply impressed with a sense of the loss which the Institution has sustained by the death of the late Mr. Guthrie, and the many years he has been connected with this charity, not only as the Senior Surgeon, but as its benevolent founder; also the valuable services he has rendered to this Hospital from its first formation, extending over a period of nearly forty years,—by his skill, high reputation, and untiring energy in promoting its interests,—are anxious to testify their sentiments of affection and respect, and their sincere regret at his death. In life, his talents commanded honour and respect among all classes of the community; in death, his memory, in the minds of the Governors of this Hospital, will ever be associated with the interest of the Charity, and devotedness to its service, by his Professional skill, of which he was so brilliant an example." Moved by Earl de Grey, K.G., seconded by the Earl of Strafford, G.C.B., and resolved,—"That this meeting desires to express its entire concurrence in the testimony therein borne to the character of the late Mr. Guthrie; and that in order to perpetuate their regard for his memory, a subscription be entered into, to be applied in aid of the Inalienable Fund, and to be called the Guthrie Fund." The sum subscribed by the gentlemen then present amounted to £240.—From the year 1817 to the 1st of January, 1856, 110,641 persons have availed themselves of the benefits of this Charity; of these, 2328 have been restored to sight by operations for cataract and the formation of an artificial pupil; the appearance of 4603 persons has been altogether improved by the operation for the removal of squinting; 5938 persons have been admitted to the benefits of the Institution during the past year, of whom 184 were in-patients.

The London Hospital Medical College.—The annual ceremony of the Distribution of Prizes took place in the

Anatomical Theatre, on Monday, June 9, before a large audience. The Right Rev. the Lord Bishop of Oxford presided. Among the visitors present on the occasion we noticed Lord Aukland, Bishop of Bath and Wells; the Rev. Canon Champneys; the Rev. Mr. Rowsell; Dr. Billing; Mr. William Cotton, Governor of the Bank of England; Mr. Stutfield; Mr. Currie, and many influential supporters of the London Hospital. The object of the meeting having been stated by the President, Mr. Luke gave a *resumé* of the progress of the pupils during the past session, and congratulated the Prizemen on the privilege of having honours presented to them by one so capable of appreciating intellectual energy as his Lordship. The medals and books having been distributed, the Chairman delivered an eloquent and impassioned address, in which, among many topics of general Medical interest, he particularly dwelt on the flourishing condition of the College, and on the paramount importance such a school of education must necessarily be to the large Hospital with which it was in connexion, and, through the medium of such connexion, to society at large. Mr. Down, the senior Hospital Medallist, having acknowledged, on the part of the students, the kindness of his Lordship in presiding, and Mr. W. Cotton having expressed the same on the part of the Governors, the meeting terminated. The following gentlemen received the honours of the day:—*Clinical Medicine* (and for "Zeal and talent; and humanity towards the patients;") Governor's Gold Medal: Mr. J. Langdon H. Down, Torpoint. *Clinical Surgery* (and for "Zeal and talent; and humanity towards the patients;") Governor's Gold Medal: Mr. Thomas E. Ruttledge, Farringdon. *College Class of Medicine.*—Senior, Gold Medal (a): Mr. J. Langdon H. Down, Torpoint; Junior, Silver Medal: Mr. James S. Hawkins, London; Junior, Certificate: Mr. Robert L. Bayley, London. *Surgery.*—Senior, Gold Medal (a): Mr. J. Langdon H. Down, Torpoint; Junior, Silver Medal: Mr. Robert L. Bayley, London; Junior, Certificate: Mr. Edward Lawranee, Ipswich. *Anatomy and Physiology.*—Senior, Gold Medal: Mr. Joseph Giles, Frome; Senior, Certificate: Mr. Alfred A. Taylor, Limehouse; Junior, Silver Medal: Mr. Harry P. Major, Hungerford; Junior, Certificate: Mr. Edward A. Page, Bedworth. *Midwifery.*—Gold Medal (a): Mr. J. Langdon H. Down, Torpoint; Certificate: Mr. Robert L. Bayley, London. *Chemistry.*—Silver Medal: Mr. E. Harford Lloyd, Thornbury; Certificate: Mr. Walter Rivington, Holloway; Certificate: Mr. Frederic E. Ryott, Newbury. *Forensic Medicine.*—Silver Medal: Mr. J. Langdon H. Down, Torpoint; Certificate: Mr. Robert Debenham, Dalston. *Materia Medica.*—Silver Medal: Mr. Robert L. Bayley, Limehouse; Certificate: Mr. Edward M. Shirtliff, Finsbury. *Botany.*—Silver Medal: Mr. Harford Lloyd, Thornbury; Certificate: Mr. James S. Hawkins, London.

ST. PANCRAS WORKHOUSE.—In the House of Commons on Monday, in reply to Sir J. Pakington, Mr. Bouverie said, that on the 4th of March last, the Board of Guardians of the parish of St. Pancras submitted to the Poor-law Board measures for remedying the defective state of the workhouse, and their proposals met with the approbation of the Government. But an inspector appointed by the Government to report upon the improvements effected, reported that nothing had been done; and, in consequence of that report, he (Mr. Bouverie) had written to the Guardians, intimating to them that if some steps were not taken in the matter, the Poor-law Board would issue a peremptory order for the reduction of the number of the inmates. He believed that the Guardians were really anxious to carry into effect measures for the improvement of the workhouse; and, in justice to them, he referred to a letter he had received from Mr. Stevens, the senior churchwarden of the parish, stating that the present Guardians, who had only been in office two months, had succeeded in making great alterations. If such improvements had been made, either the report of the Poor-law Inspector was erroneous, or the improvements had been made since the 2nd of April.

DUBLIN HOSPITALS.—In the House of Commons on Wednesday, Mr. Horsman obtained leave to introduce a Bill for the Regulation of the Houses of Industry Hospitals, and other Hospitals in Dublin, supported wholly, or in part, by parliamentary grants.

ADULTERATION OF FOOD.—The District Board of the parish of Hackney have appointed Dr. William Tripe to inspect and analyze articles of food, for the purpose of detecting any adulterations in them.

PUBLIC PROSECUTORS.—In the House of Commons on Monday, Sir G. Grey in reply to Mr. J. G. Phillimore said that it was not intended in the present session to bring in a bill for the appointment of a public prosecutor, but one would be framed during the recess.

MORTALITY NOTABILIA.—In the week that ended on Saturday the deaths from all causes registered were 1068, of which 538 were deaths of males, 529 those of females. To the people of London the month of June is the healthiest in the year, and probably the mortality is now nearly as low as it will be this season. The average number of deaths in the first week of June during the ten years 1846—55 was 956; but, as the deaths of last week occurred in an increased population, it is necessary for comparison to apply a correction to the average, which makes it 1052. The present rate of mortality, therefore, exceeds the average, though only in a small degree. For six weeks, though the mean daily temperature has been occasionally above the average, the mean weekly temperature has been constantly below it.

BIRTHS.—The births of 866 boys and 881 girls, 1747 children, were registered.

METEOROLOGY.—The mean height of the barometer in the week was 29·902 in. The mean daily reading was above 30 in. on the last two days. The *highest* reading in the week was 30·15 in. on the 7th. The mean temperature of the week was 56·7°, which is the highest weekly temperature obtained this year, but is still 0·4° below the average of the same week in 38 years.

THE following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina.	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	3	3	6	..	8
North	490,396	6	3	6	9	..	7
Central ..	393,256	1	10	6	9	3	7
East.....	485,522	2	8	11	12	4	16
South	616,635	1	17	16	8	3	20
Total..	2,362,236	10	41	42	44	10	58

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, June 7, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, June 7, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean Temperature.....	Mean temp. 53°3						56°2
ALL CAUSES	1068	521	184	172	160	28	955·5
SPECIFIED CAUSES	1063	520	184	172	159	28	948·2
DISEASES:—							
1. Zymotic Class	249	180	27	24	18	..	222·5
2. Dropsy, Cancer, and others of uncertain seat	54	8	6	16	20	4	42·9
3. Tubercular Class	200	80	73	42	5	..	191·0
4. Of Brain, Nerves, etc. ..	109	56	13	17	22	1	117·3
5. Of Heart, etc.	62	6	19	25	11	1	36·8
6. Of Respiratory Organs ..	119	68	11	18	17	5	120·8
7. Of Digestive Organs ..	67	32	13	13	9	..	61·6
8. Of Kidneys, etc.	21	1	7	7	6	..	12·3
9. Of Uterus; viz. — Puerperal Disease, etc. ..	11	..	6	2	3	..	8·5
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	5	3	..	..	2	..	8·5
11. Of Skin, etc.	..	..	..	..	..	..	2·0
12. Malformations	9	9	..	..	..	..	3·7
13. Debility from Premature Birth, etc.	30	30	..	..	..	..	22·1
14. Atrophy	41	24	2	2	13	..	23·5
15. Age	43	..	..	..	27	16	34·0
16. Sudden	12	4	3	2	2	1	6·0
17. Violence, Privation, etc...	31	19	4	4	4	..	34·7
CAUSES NOT SPECIFIED.. ..	5	1	..	..	1	..	7·3

(a) Works of the Sydenham Society, Rose's Analysis, and Lindley's Vegetable Kingdom, in lieu of the Gold Medals.

Deaths in Public Institutions for the Week ending May 31 and June 7 :—

	In the Week ending May 31.			In the Week ending June 1.		
	Males.	Females.	Total.	Males.	Females.	Total.
Workhouses	53	59	112	57	61	118
Prisons	15	..	15	4	..	4
Military and Naval Asylums	7	..	7	9	..	9
General Hospitals	39	22	61	35	20	55
Hospitals for Special Diseases	8	7	15	9	7	16
Lying-in Hospitals	..	..	..	..	..	..
Military and Navy Hospitals	4	..	4	8	..	8
Hospitals and Asylums for Foreigners	2	..	2	..	..	..
Lunatic Asylums	10	5	15	6	3	9
	138	93	231	128	91	219

BOOKS RECEIVED.

The Complete Handbook of Obstetric Surgery. By Charles Clay, M.D. London: Renshaw. 1856.

Phlebitis in Folge des ohne Tenotomie and ohne Maschinenkraft Während der Chloroformnarkose ausgeführten Brisement forcé des contrahirten und ankylotischen Kniegelenkes. Von Dr. Hermann Friedberg.

Health, Work, and Play. Suggestions by Henry W. Acland, M.D., F.R.S. Oxford. 1856.

The Treatment of Aneurism of the Arteria Innominata by Ligature of the Right Common Carotid Artery. By William Wright, M.D. Montreal. 1856.

The Administration of Medical Relief to Out-Patients at Hospitals. Reprinted from the *Times*. London: Barrett. 1856.

Third Annual Report of the County and City of Worcester Pauper Luuatic Asylum. Worcester. 1856.

The Rise and Progress of British Opium Smnggling. By Major-General R. Alexander. London: Seeley, Jackson, and Halliday. 1856.

TO CORRESPONDENTS.

Verax.—If the facts are sent to us, properly authenticated, our columns will be open to their publication.

Mr. Holberton.—We are sorry that the appearance of the communieation was deferred in consequence of the great space occupied by the Palmer Trial. It will be fonnd in the present Number.

Mr. A. J. Wood will receive a private note.

M.R.C.S., L.S.A., and L.M.—We think there is no probability that the Apothecaries' Society will ever possess the privileges allnded to. The plan of Medical Reform which we have presented to our readers would obviate many existing anomalies.

Mr. W. Parker's communication is declined.

Dr. Joseph Dickson, Jersey.—The paper has been unavoidably delayed, but it will appear very shortly.

The important paper on Excision of the Knee-joint, by Mr. Jones, of Jersey, will be put in type immediately.

We have received a letter from Dr. Letheby, promising the publication of the process by which strychnia may be produced in a crystalline form in the body of any animal killed with the veriest minimum dose of that poison.

X. O. Y.—We cannot recommend any particular practitiouer; the case is a surgical one, and the operation may be performed by any well educated Surgeon. The addresses of the operating surgeons will be found in the Loudon and Provincial Medical Directory.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Mr. Adams, in his Lectures, recommended the plantar fascia to be divided in certain cases, but he did not describe the operation—when it should be performed, or how to avoid the arteries of the sole. The details of the proceeding are as much required, as are those for the division of the tendo Achillis. Perhaps he will supply the omission in one of the Lectures on varns.'

There is no description of it in Mr. Tamplin's work on Deformities. In Paris it is divided from without to within. I am, &c.

June 6, 1856. A Student.

Queen's College, Birmingham.—In answer to our correspondent, we have much pleasure in stating positively, that Dr. Beale's Lectures will be continued, and that the two remaining lectures will shortly be published. We are expecting to receive the next from the author daily.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—Much has been said in your valuable periodical, by yourself and others, on the subject of Medical relief to the poor, but it has struck me for some time that a remedy is at hand, simple and easily put in practice for most, if not all the evils which exist. Let a specific sum be fixed for every order given for Medical attendance; also permit the poor man to choose his own Medical attendant—do not force him to any Medical man as at present. Such a plan would secnre better attendance for the poor, and it would give, or ought to give, satisfaction to the Profession.

I am, &c. A Subscriber.

CORPULENCY.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—About three months ago, space was found in the columns of your journal for a communication of mine, detailing the self-treatment of Corpulency, founded npon a systematic arrangement of the diet; viz., omitting bread and fermented liqnors, which produced an incredible effect. The plan was first adopted by myself abont eleven years ago, during the time of my Medical pupilage, as I fonnd the unenviable state of *embonpoint* not only subjected me to unpleasant criticism, bnt was also unfavourable to the acqnirement of Professional knowledge. The system has never failed in benefiting myself, and therefore the light, if new, mnst not be concealed.

The following I consider a satisfactory case, in which the treatment, althongh a little altered, was rigidly adhered to:—E. W., a magistrate of a remarkably good-natured and cheerful disposition; height about 6 foot 3 inches, aged 58 years; weighing about 21 stone; suffering from or enjoying the true pot-belly of Prince Hal's jovial companion, viz., the Polysarcia Omenti of Medical writers: seeing my communication in your journal, thus dieted himself:—Breakfast, consisting of two ounces of biscnit, an egg, and two cnps of tea; but instead of fasting till 5, ate about 1 o'clock one ounce of biscnit, with a wineglassful of port-wine. His dinner at 5 consisting *ad libitum* of animal food, etc., but no bread or fermented liqnors; likewise avoiding the same at subseqnent meals. I saw him abont a fortnight ago, and he then said he had lost in weight one stone and a-half—his ambition being to reach 18 stone by degrees. A very zealous anonymons writer, J. B. N., has sent me three unpaid letters. To please him I cannot reduce myself *ad mortem*—12½ stone weight being about compatible with a six-foot height. I am, etc.

2, Besborough-street, Belgrave-road. A. W. Moore.

We have received a letter from Mr. Fowell, Secretary to the Margaret-street Dispensary for Diseases of the Chest, complaining of some expressions in one of our Auswers to Correspondents, to the effect that a vacancy had been caused by the retirement of Dr. Hastings, one of the Physicians to that establishment, and expressing our ignorance of the manner in which strychnia, arsenic, oxalic and fluoric acids were employed in the treatment of the cases. We did not in any way connect the retirement of Dr. Hastings with the proper or improper use of those medicines; and we now learn that in point of fact Dr. Hastings has not retired, for he has been requested to accept the post of Consulting Physician.

Inops.—The symptoms described are not of a dangerous character, nor are they incapable of removal by judicious treatment. By all means avoid the advertising quacks, and seek the advice of some respectable Surgeon. For obvious reasons we decline to name any one in particular, but a very slight acquaintance with London society, will enable a judgment to be formed of the Professional gentlemen who occupy the most honourable positions in this Metropolis.

COMMUNICATIONS have been received from—

Mr. H. H. Watson; Mr. Vaughan Holberton; Indignans; Dr. McCormac; Verax; A Subscriber; Mr. Spencer Wells; Dr. James Kirk; Dr. James Jones; A Student; Mr. Haynes Walton; Dr. Hyde Salter; Dr. Joseph Dickson; Dr Fairbrother; Dr. Letheby; Mr. G. W. Mould; X. O. Y.; Mr. J. H. James; Inops; Mr. Jabez Hoggs; Mr. Tyerman; Mr. O. Eromdrae; Mr. S. Fowell; Dr. Andrew Smith; Dr. Radcliffe.

APPOINTMENTS FOR THE WEEK.

June 14. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Royal Institution, 3 p.m.: Dr. A. W. Hofmann "On the Non-Metallic Elements: their Manufacture and Application."

Royal Botanic Society, 3¾ p.m.

16. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

Statistical Society, 8 p.m.

17. *Tuesday.*

Operations at Guy's, 1 p.m.

Linnean Society, 8 p.m.

18. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

Geological Society, 8 p.m.

19. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

Royal Society, 8½ p.m.

20. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Pollock "On the History and Constitutional Character of Phthisis."

ORIGINAL LECTURES.

LECTURES ON EPILEPSY.

DELIVERED AT

Westminster Hospital.

By CHARLES BLAND RADCLIFFE, M.D., L.R.C.P.

Assistant-Physician to, and Lecturer on Materia Medica at, the Westminster Hospital.

Lecture III.

CASES.

Case 1.—Miss Henrietta W., aged 17. The subject of distinct epilepsy for seven years. When a very young infant she had several attacks of convulsions, which were supposed to be dependent upon water on the brain. The first epileptic fit occurred at school after having been frightened by a cow in the earlier part of the day. Before this time the health had been gradually failing—failing, there is reason to believe, from the stingy dietetic arrangements of the school at which she was staying. After this time the fits recurred with considerable regularity at intervals of a month. The menses were established about two years ago without any sensible effect upon the fits. According to the aunt with whom Miss W. lives, there is much hysteria mixed up with the case, and the fits themselves are often of an hysterical rather than an epileptic character. The patient has never taken any stimulants.

Nov. 17, 1849.—Short and square built; head somewhat large; forehead receding; eyes very prominent; pupils dilated, but not very sluggish; expression of countenance, sour but not stupid; the memory not very defective, but very wanting in the power of application. Will often have fits of crying and sobbing for hours together, particularly after having had a long walk. Hands and feet constantly cold; pulse very small and weak, 72; the appetite fitful, but not defective upon the whole; the tongue has been bitten several times. The aunt states that the fits occur now about the third day of the menstrual period, and generally in the night; and that the face is usually much discoloured. Sometimes, but not always, there is foam at the mouth.

Ordered to be kept quiet and sent to bed early,—to have an egg beat up in a glass of port wine at eleven o'clock every morning, and a glass of wine shortly before going to bed at night, to discontinue all studies for the present, and to take three times a day two tablespoonfuls of the following mixture:—

℞ Ferri ammonio-citratis ʒi., ætheris chloriei ʒij., aquæ destillatæ ʒviij. M.

Nov. 29.—Has been much quieter, and in every respect appears to be better. No fit. No alteration in the treatment.

Dec. 16.—Three nights ago, about the usual time, a fit occurred in the night. This was very brief, and there was little depression and irritability the next day. The patient is stouter than she was, and she now eats with an appetite. Her countenance is more animated, and of a better colour. No alteration in the treatment.

Feb. 14, 1850.—Until last night she went on very well, and then she had a fit of considerable severity after coming in from a long walk. This was two days after the completion of the menstrual process. This morning she is evidently depressed, and yawns very much. Her pupil, also, is considerably dilated. For the last three weeks the medicine has not been given with any regularity, and she has been in the daily habit of taking long walks. She is growing very fast.

Ordered, not to tire herself by walking, and not to neglect taking the mixture for the present. Ordered, also, to have a glass of wine or porter with her dinner.

March 16.—Decidedly better. No fit since the last visit. During the last three or four weeks she has been a very persevering student at the piano, and this must be taken as a very considerable evidence of improvement; for, when she was first put under treatment, she had no power or no disposition to apply herself to this or any other pursuit. No alteration in the treatment.

June 12.—No fit since the last visit, and a marked improvement in every other respect.

This patient went abroad shortly after this time, and I saw her no more. Twelve months later, however, I learned that her health continued to improve, and that she had had no fits; and a year after this time, when I lost all traces of her, I have reason to believe that she was still without the fits and well.

Case 2.—Mr. William C., aged 19. The subject of marked epilepsy for six years. When sixteen he had formed an improper connexion with a young woman, which ended in her pregnancy, and besides this he had been guilty of other practices of an equally reprehensible character, and since this time there has been no material reformation in his habits in these respects. At first the fits occurred at wide intervals, but lately they have been of almost daily recurrence.

Jan. 4, 1850.—His appearance indicates great exhaustion. He is tall, and thin, and very pale; perspiring profusely on the least exertion, and suffering from almost constant toothache and headache. He abstains, and always has abstained, from alcoholic drinks, but he indemnifies himself by smoking excessively—even before getting out of bed in the morning. His memory, he says, is very bad, and he cannot bear the least contradiction. His fits occur generally at night. He dines in the middle of the day, and takes no meal of any moment afterwards. Often he lies awake half the night. The pulse is very feeble, 72. The hand is cold and clammy. The pupil is sluggish and dilated.

Ordered to be steady, to live more freely, to take more animal food, and make a good supper of one kind or another; to take a quart bottle of Guinness's stout in the course of the day, reserving the last glass for supper; to smoke less; to go to bed at half-past nine, and to take the following draught three times a-day:—

℞ M. Ferri comp. ʒj., ætheris chloriei ♏ xx.

Jan. 21.—Much better. His appetite improved, and his sleep much sounder. The fits, however, have recurred every other day, and yesterday he had one of considerable violence. No alteration in the treatment.

Feb. 8.—Evidently improved. No fit for three successive days, and suffers now much less than he did formerly from toothache and headache. To continue as before.

Feb. 21.—Still improving. Has had three fits since the last visit. Appetite greatly improved. Pulse 70, a little stronger; wakes frequently at night with cramps in his legs. He complains of feeling low and depressed in consequence of having given up (spontaneously) smoking. For three or four nights he has had a good deal of headache in bed. He proposes to go to Hastings for three or four months. Recommended him to sleep with his head upon a lower pillow, and to raise the head of the bed a little, so that the blood might gravitate into his legs and prevent the cramp; but no alteration in other respects.

May 9.—He has been at Hastings since the last visit, and is evidently much benefited by the change. He is both stouter and stronger, and he now suffers very rarely from headache. During the whole of his stay on the coast he only had three fits, and two of these, he thinks, were brought on by ascending the Castle-hill three times in the course of the same day. He has been taking no medicine during the last month, and he thinks himself not so well without it, though he has been taking wine in addition to the porter. He says that the wine and porter have the effect of making him less irritable and despondent than he used to be, and that he can now apply himself to reading without any great effort, which was not the case formerly. His mother's brother, it appears, was insane, and insanity, he thinks, may be his own fate, except he can get something to occupy his mind. At times he is much teased with flatulency. He was ordered to take ♏ xxx. of naphtha suspended in peppermint water with a little mucilage, and to repeat the dose three times a-day. No other alteration.

May 18.—The medicine agrees very well. No fit since the last visit. The dose of naphtha increased from ♏ xxx. to ♏ xl.

September 10.—He has been in Scotland since May last, and during the whole of this time he had only one fit. Several times he had threatenings, but he succeeded in averting the fits by smelling at a bottle of salts which he carried in his pocket, or by taking a glass of wine if he had the opportunity. The fit which did happen appears to have been caused in the main by his having been kept waiting for food for some hours beyond the accustomed time, and then being very sick in crossing a ferry. It was very violent, but he awoke almost immediately afterwards, and the next morning he felt comparatively well. His whole appearance is more satisfactory, but the expression of his countenance is jaded and his pulse

weak. He says that, when in Scotland, he generally took a glass of whiskey-and-water in the evening, and that he found no harm from the practice. He has again begun to smoke. He took the naphtha for two months.

Oct. 14.—No fit. Improved in general health. His memory, he says, now serves him very well, and it now requires more provocation to rouse his temper. He was desired to return to the naphtha for a short time.

Dec. 1.—This afternoon I was sent for to visit him at his home and found him much worse. Three days ago, while amusing himself with joinering, he had plunged a sharp chisel into the palm of his hand, and lost a considerable quantity of blood before help could be obtained. The night following he had a fit during sleep, and again on the next night. He is now suffering from great mental depression and headache. I recommended him to take nourishment and wine, to be quiet, and to take an ounce of Griffith's mixture with half a drachm of chloric ether every four hours.

2nd.—He is much relieved. No fit since the last visit.

4th.—He had a fit in the night, and now feels very much depressed. Ordered to take naphtha ♏ xxx. in a little peppermint water every four hours.

12th.—He has been going about for the last three or four days, and he has now recovered his spirits and appetite. No fit since the 4th, and little or no headache. No alteration in the treatment.

Jan. 8, 1851.—Improving. Still no fit. No alteration in the treatment.

August 15, 1854.—To-day I have learned, that very shortly after I saw Mr. W. C. last, he went out to act as a clerk in the office of a relative, a merchant, in Calcutta, and that upon the whole he had had very good health. I could not learn any particulars, but my informant told me that my patient very rarely had a fit now, and that he was quite equal to all the duties which devolved upon him.

Case 3.—Captain ——, aged 34. For some years this gentleman was a "hard liver," and much addicted to very dissolute courses; but his health did not suffer, except in trivial matters, until about three years ago. The first sign of disorder was a fainting fit. This happened on parade on a hot summer day. About three months afterwards he fainted again. About this time he occasionally awoke with headache, and once his tongue was sore. Six months after the first fainting fit he had a fit in which he was convulsed and dark in the face. This was in a brothel. During the twelve months following he had three such fits, two of them under similar circumstances to those in which the last had happened, and one after a long and fatiguing walk on a very hot day. After this last fit he for the first time submitted to medical advice, which advice was to leave off his dissolute courses, to abstain from wine and spirits, to take less animal food, and to take regular walking exercise daily. He persevered in this treatment without any benefit. On the contrary, he became weaker and more dispirited, and he had several (he does not recollect the number) fits, fainting and others. After this he was urged by his comrades, the officers in one of Her Majesty's cavalry regiments, to return to the ordinary practices of the mess, and from this time he says he began to improve.

Jan. 7, 1850.—Slight made and rather tall; complexion sallow and somewhat congested, particularly about the under eyelids. Pupil somewhat sluggish and dilated. Expression jaded. Pulse 58, weak. His memory, he says, was never good, but he does not think it is worse now than it was before he became subject to the fits. He further says, that the only change he can notice in himself is that he is more easily "put out," and not quite so "plucky." When out with the hounds he "thinks" before putting his horse at a fence. His appetite is not amiss. He often makes large quantities of pale urine, and not unfrequently he is greatly teased with flatulence, particularly when he smokes.

I recommended him to take more animal and less vegetable food, with at least an average amount of wine and alcoholic drinks, to leave off smoking, or else to smoke very mild tobacco, to adhere to the strictest rules of celibacy, to go to bed early, and to take three times a day a pill containing one grain of quinine and two grains of camphor.

Feb. 12.—He has had no fit since the last visit, and his countenance appears a little more cheerful than it did. There has also been much less flatulence. He has gone to bed early, and this is the only part of the treatment to which he objects. No alteration in the treatment.

March 25.—Captain —— went on well up to a fortnight ago, when he had a severe attack of diarrhœa, brought on, he thinks, by a stale lobster salad. This was eaten late at night at an evening party. This diarrhœa continued about twenty-four hours, and during this time he took little or no food, and nothing of a stimulating character. The day following he walked about three miles to see a friend, and then walked back again, and immediately upon his return he fell upon his dining-room floor in a fit. This dispirited him very much, and he had no dinner except a little soup. In the course of the evening he had another fit, and on the day after the next, he had another. At present he is far from having recovered, and he complains a good deal of flatulence and headache. He was recommended to continue his pills, and to take occasionally, in a little water, a small teaspoonful of a mixture consisting of equal parts of chloric ether and sal volatile.

April 21.—Since the last visit he has progressed favourably, and he is now in very good spirits. No fit as yet. No alteration in the treatment.

May 6.—No material alteration. No fit. The same treatment continued.

July 19.—He progressed favourably, without any fits, until a week ago, when he had one. This was followed neither by headache nor sleep; and, four or five hours afterwards, he went out to dine. He says that he cannot account for this fit, but that, for a few days previously, his appetite had not been quite so good as usual, and that he had been much teased with flatulence. The tongue is at present disposed to be dryish, and there is a little thirst. Ordered to have a grain of compound rhubarb pill added to the pills he is taking, and to go on as before.

September 14.—He looks to-day much better and stronger than he was when seen last, and there has been no return of the fits. He has just returned from a few days' partridge shooting, and he says that he enjoyed his sport very much. Returning home one night he felt excessively tired and depressed, and he thought he should have a fit, but after dinner and a few glasses of wine he felt better. On this day he had forgotten to take any means of refreshment with him. He now thinks he is well enough to dispense with any more medicine.

December 5.—The improvement noticed at the last visit still continues. The fits are still absent. Six weeks ago, he says he was troubled with headache and irritability, and these symptoms caused him to return for a few days to the pills and drops, and this was all. The pupil is certainly very much less sluggish and dilated than it was at first.

This was the last time I saw, or heard, of this gentleman.

Case 4.—Mr. William H——, aged 37. The subject of epileptic fits for five years. Lately the fits have recurred as frequently as one a month, and generally with considerable regularity, but formerly they were separated by much wider intervals. The first fit occurred in the neighbourhood of Calcutta, where he had been living for ten years. He never enjoyed good health in India, and more than once he nearly lost his life from dysentery. He had also suffered from three distinct attacks of remittent fever, and for six months preceding the first fit he had marked symptoms of tertian ague. The first fit occurred in the open air, on a very hot morning, but he does not think that he had been at all exposed to the direct action of the sun. For this he was bled twice. The week following he had another fit, when he was bled again. No purgatives were given him, for his bowels were then in a very loose state; but he was kept upon very low diet for three or four weeks, and all stimulants were distinctly forbidden. During the next two months he had several fits, and at the end of this time, finding himself much weaker, he resolved to return to England. The voyage home, which was by the Cape, did him much good, and at its conclusion he felt much stronger. He had four fits while at sea, all in the night.

March 3, 1850.—He has been in England about a fortnight, and feels the cold very much. He is short and well made, except that the head is perhaps a little larger than it ought to be. His countenance is somewhat wanting in expression, and his complexion is very sallow, and much tanned by an Indian sun. There is no decidedly epileptic expression, and no specific petechiæ about the eyelids. The pupil is somewhat dilated and sluggish. The hand is cold, and he complains much of cold feet. In the night he had, for the first time for several months a distinct attack of aguish

rigors, followed with heat and thirst; but now his pulse is weak and slow, 69. At the present moment he is suffering from what he says is a very common symptom—headache. The bowels are at present somewhat sluggish, and they have been in this state for four or five weeks; he complains, also, of a little dull pain in the right side and shoulder, but there are no other perceptible evidences of biliary derangement. The appetite is very defective, and there is no thirst. On the voyage home he was recommended by the captain to resume his former habits in the matter of stimulants, and after this time he always took wine or ale, or both, at dinner, and ended the day with a glass of warm whiskey-and-water. He had, he says, restless nights before he adopted this practice, but since he adopted it he has slept well, and finds himself refreshed in the morning. He says further that stimulants do not now "get into his head as they once did." He still continues the practice.

I recommended him to keep quiet and warm, and to take three grains of quinine three times a-day; and in other respects recommended him to live as he had lived on shipboard.

5.—He had a bout of ague yesterday, but the rigor was not so prolonged as before. No alteration in the treatment.

11.—He had another attack of ague in the night, and this morning upon getting out of bed, he felt faint and fell upon the floor. He says he did not lose his consciousness, but there is some doubt upon this point. He is at present suffering from headache and depression of spirits. The tongue was not bitten, but it exhibits the scars of former bites. He was ordered to keep more quiet and to continue as before.

29.—He has been improving since the eleventh, without any sign either of ague or epilepsy, and his appetite is now good and his countenance much more cheerful. He talks about returning to India, and says he does not see why he should not be as well there as here, if he adheres to the same rules.

April 10.—Much improved; for a whole month he has been free from headache, and this is a great evidence of improved health, for he has been an almost constant martyr to this affliction for years. The bowels act naturally. The quinine to be continued.

Feb. 6, 1851.—Mr. ——— wrote to me from India to say that he had been quite well since he returned home, and that he still continues almost entirely free from headache. About three months ago he had some symptoms of ague, but these subsided in the course of a fortnight under the use of quinine. He still continues to take what he calls "a fair quantity of stimulants."

Case 5.—Mr. Cæsar H, ———- aged 27. This gentleman has had occasional attacks of epilepsy for five years. These attacks have generally occurred during the night, but lately they have occurred several times during the day. He has also had repeated attacks of dizziness. At one time he led a very debauched life, and he ascribes the fits to this cause; but now his habits are entirely changed. He has, indeed, for some time been a most rigid ascetic in every respect, not touching animal food on the days in which it is proscribed by the Romish Church, of which he is a very strict member, and never tasting any kind of stimulating drink. Every morning he gets up early to go to church, before going to his ordinary duties, which are those of a clerk in a public office. For some time he has suffered from *pertes séminales*, and these occasion much physical depression and great moral distress.

March 7, 1851. Tall and thin. The face extremely pale, and the hands almost transparent. The pupils are both sluggish and dilated. His memory, he says, is not at all affected, and he has no difficulty in dealing with very complicated calculations. What he lays most stress upon is his moral depression, and this he considers as a proper punishment for his former misdoings. When at home he will lie brooding and desponding for hours together. He is unmarried, and studiously avoids all society. The pulse is exceedingly weak—75. The tongue has not been bitten.

Ordered him to take animal food at least once a-day, to take bottled stout, to go out occasionally to places of amusement, to go to bed early and not to get up until nine o'clock, and to take an ounce of Griffith's mixture with thirty drops of chloric ether three times a-day; ordered him also to have a biscuit and glass of sherry at his office in the middle of the day.

30.—His spirits are evidently improved. To continue as before.

April 10.—He woke this morning laughing, and says that that laugh was the first he had been guilty of for at least three years. He now eats with an appetite, and begins to think the world not quite so dismal. Three days ago he had a slight fit on his return home, and thinks this was due to his having missed his biscuit and glass of sherry in the middle of the day, his stock being exhausted. This was followed by a good deal of sleepiness and headache, but the next day he felt pretty well, except a little uneasiness in his limbs.

May 5.—He went yesterday to the Great Exhibition in Hyde Park, and became quite excited and delighted while there. After this he walked home with as much buoyancy as he had ever felt. He has ceased to fast on Fridays. He now takes upon an average three glasses of wine and two glasses of bottled porter in the course of the day. His countenance is still pale, but not so pale as formerly. No alteration in the treatment.

April 6, 1852.—I met him to-day accidentally in the street, and was surprised to see the great change for the better which had taken place in his appearance. He said that he believed himself to have entirely got over his fits, and that he had not had one since he saw me a year ago, except once at the beginning of the past winter. This fit, if it did occur, occurred in the night. He thinks it did occur because he felt in the morning as he used to feel after the fits; but he says that he had been smoking a good deal over night, and that smoking always puts him out of order. Very shortly, after seeing me last, he removed into the country, and there he is at present. He says he now feels quite well and happy, and he hopes before long to be married.

Case 6.—Miss C., aged 38, an epileptic of fifteen years' standing. The fits have always occurred frequently, but lately their frequency has considerably increased, and now rarely a week passes without one. Sometimes, but not invariably, two or three fits succeed each other before the consciousness returns. She suffers almost constantly from depression of spirits and great headache. She belongs to a very respectable family, but since the death of her father, which happened seven years ago, her circumstances have been much straitened.

Oct. 29, 1851.—Short and square-built; head large; eyes large and prominent; pupils very much dilated and very sluggish, under eyelids large and bloodshot, with numerous minute spots of ecchymosis upon them. Expression of countenance dismal rather than melancholy; pulse very small and weak—56; hand cold and clammy; tongue white; great flatulence; habitual diarrhœa. The catamenia profuse, and attended with much pain.

The directions given to her were to take more animal and less vegetable food, with a fair allowance of seasoning; to take beer; to avoid tea, and to take strong coffee instead; to avoid walking as much as possible; and to take three times a-day a pill containing 2 grains of sulphate of iron, and 2 of camphor, and occasionally a teaspoonful of a mixture containing equal parts of chlorie ether and sal volatile. Her supper for a short time was to be a pint of milk with half a wine-glassful of rum in it.

November 10.—She looks a little more cheerful. The diarrhœa is stayed, but the bowels still act twice a-day. The headache and mental depression are but little relieved. She has had two fits. The pulse a little fuller—62. No alteration in the treatment, except to take the drops a little more frequently, and to lie down for an hour after dinner, which is in the middle of the day.

December 1.—A decidedly more cheerful expression in the countenance. She is now some hours without headache every day—a relief which she has scarcely known for four or five years; and her sleep is disturbed by fewer dismal dreams. The bowels now act only once a-day. No alteration in the fits, one still occurring about once in seven days. No alteration in the treatment.

7th.—Not so well. Three days ago, having missed the omnibus, she had a walk of five miles. A fit followed in the night. The next morning the catamenia appeared with great profuseness and much pain, and during the day she had another fit. Her headache is almost constant; and the expression of her countenance is extremely desponding. Ordered her to keep in the recumbent position until the menstrual

discharge ceased, to take bottled porter, and to continue the medicine.

26th. — Better again. She had a severe fit immediately upon reaching home after the last visit. Her headache is better, but her spirits are very despairing, and her dreams are very distressing. Instead of the pills, to take three times a-day the following draught:—

℞. Naphthæ purificatæ, spir. ammon. arom, āā ♏xx. mucil. acaciæ ʒss; aquæ destillatæ, ʒxiss. M.

February 1, 1852.—Since her last visit she has had two fits, one of considerable severity, and both during the period of menstruation. The menses were as profuse as ever. A fortnight later she had a good deal of headache, but she escaped the fit. During the last week she has been comparatively free from headache, and she says that her head is now comparatively comfortable, except after a disturbed and sleepless night. Hot coffee, she finds, will often relieve the headache now. The medicine, she thinks, has made her head feel lighter and clearer. Ordered to increase the dose of naphtha from ♏. xx. to ♏. xl., and to go to bed not later than half-past nine o'clock.

March 16.—No alteration of any moment. She had two fits, during the last menstrual period, but these were less severe. The discharge also, was less profuse, and there was less pain in the head and elsewhere. Her mother states that she wakes much sooner after a fit, and that there is less confusion and sleepiness afterwards. The dose of naphtha to be increased from ♏. xl. to ♏. lx.

May 1.—No material alteration. She believes, however, that she should have been much better if she had not had to bear some very distressing domestic losses. The medicine still relieves the headache, but it causes some nausea, and the patient has taken a strong dislike to it. Two fits occurred during the last menstrual period, and one a fortnight later, the latter being the termination of a fit of crying and sobbing, which continued for more than half the night. Ordered to take a glass of bottled porter or bitter ale before going to bed, to sleep with the head upon a lower pillow, and to take the following draught three times a-day.

℞ Quinæ disulphatis, ferri sulphatis āā gr. i., ætheris chlorici ♏. xv., acidi sulph. dil. ♏. ii., aquæ menthæ pip. ʒj. M.

June 12.—Looking better again. There has been only one fit since the last visit, and this occurred in the night, about the end of the menstrual period. Much less headache than formerly. Ordered to persevere in all things, and to be particularly careful not to exhaust herself by walking, or in any other way, when she expected her next monthly period.

September 19.—There has been no fit since the last visit, and the countenance has now become brisk and animated. Headache is now only an occasional symptom. The mother also says that she is much less irritable, and enters more into the amusements and occupations of the family. This is a great change, for formerly she would sit for days in a moping, brooding condition, and never once lose the appearance of a person suffering from marked melancholy. She has fewer disagreeable dreams since she slept with her head upon a lower pillow. She has taken the medicine regularly up to this time, and now wishes to discontinue it

December 8.—Not so well. She went on well for two months after the time of the last visit; and during this time she had only one fit, which followed a long walk in the country. She says she could master her fits, she is sure, if she had less domestic anxiety to depress her. During the last fortnight she had three fits, occurring on successive days. These happened at the end of an unusually protracted menstrual period. Ordered to resume the last mixture, and to carry out all the old rules.

May 7, 1853.—She has been staying for four months with a relation in the country, and the change has done her much good. During this visit she had every day three glasses of port-wine; and this, she thinks, did her as much good as the medicine, which she has taken regularly. During this time she had two slight fits. These occurred at the two first menstrual periods.

From this time I continued to see Miss C. at intervals. As the winter of 1853-4 came on she began to flag, and she did not rally again until the summer. During this time the fits occurred about once in two months, and generally about the same time. Sometimes she got over two months. She is not now troubled very much with headache, and her spirits are much better; and this was her state about twelve months ago.

Case 7.—John Walters, aged 30. This patient, who was an out-patient at the Westminster Hospital, says he enjoyed good health until about two years ago, when he was turned out of his situation as a groom on account of his sporting tendencies. Before this time he lived very well, and had abundance of malt liquors, but since that time he has been suffering from almost constant destitution. Soon after losing his situation he began to suffer from frequent *pertes séminales*. The first fit occurred about eighteen months ago, and since this time the *pertes* and the fits have been very frequent. He rarely passes three days without a fit, and the fit generally occurs during a long walk. He walks a great deal—ostensibly with a view to finding work. His memory is very treacherous.

June 1, 1853.—Tall, full, and flabby. His face is very stupid, and there are numerous epileptic ecchymoses upon the under eyelids and forehead. The tongue has been frightfully bitten, and it is now sore and raw from a recent bite. His pulse is remarkably small—60. Ordered to live as well, and to keep as quiet, as he could, and to take 2 grains of camphor in a pill every four hours.

7th.—No material alteration. The dose of camphor to be increased from 2 grains to 4 grains. One fit since the last visit.

14th.—Has had no fit since the last visit, and only one *perte séminale*. His pulse seems a little stronger.

21st —He has now been ten days without either fit or *perte*, and his appearance is much more satisfactory. Ordered, in addition to the pills, an occasional dose of the ordinary carminative mixture of the Hospital.

July 4.—Still continues to improve, and still without a fit. He has now got employment in a livery-stable, and he is already benefitted by the better diet which he is able to command. He takes two glasses of bitter beer in the course of the day, and no more. No alteration in the medicine.

October 6.—A week after my last seeing him he considered himself well enough to be able to do without medicine, and the improvement continued until about a fortnight ago, when he had a fit in the night, and another on the night following. This was two or three days after marriage. These fits were followed by much headache, but his spirits were not so much depressed as formerly. He has again returned to the camphor pills and carminative mixture.

19th—Considerably improved in appearance. No return of the fits.

This was the last time this patient made his appearance at the Hospital.

LECTURES

ON

GENERAL NATURAL HISTORY.

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LECTURE V.

The *Actinozoa* are those *Cœlenterata* in which the stomach is a sac suspended within, and entirely distinct from, the body, from whose parietes it is separated by a portion of the general cavity of the body, which may receive the special denomination of "perivisceral cavity." The stomach communicates freely by an inferior aperture with the general cavity. A rough conception of the relations between the *Actinozoa* and the *Hydrozoa* may be obtained by supposing the walls of the natatorial disc of a *Lucernaria* to become united with those of its central polype; it would then become, to all intents and purposes, an Actinozoon. As the *Hydra* was taken as the type of the class *Hydrozoa*, so the sea-anemone, or *Actinia*, may be considered to be the type of the *Actinozoa;* and I shall, therefore, preface what I have to say regarding this class with a general description of the structure of the *Actiniæ*.

Fig. 1.

Perpendicular section of *Actinia holsatica* (after Frey and Leuckart).—*a*. Mouth. *b*. Stomach. *c*. Common cavity. *d*. Intermesenteric chambers. *e*. Cord containing thread-cells at the edge. *f*. The mesentery. *g*. Reproductive organ. *h*. Tentacle.

An *Actinia* presents a subcylindrical body, attached by one end, and presenting at the other a flattened and rounded disc, in the centre of which is the aperture of the mouth, while its margins give origin to a more or less numerous series of radiating tentacula. Much as it may seem, however, that the *Actinia* presents a perfect example of radial symmetry, a careful inspection of the mouth shows that this radial arrangements of the parts around a common centre is more apparent than real. At two opposite points of the circumference of the mouth, in fact, strong prominences are observed, which are quite distinct from the wrinkles into which the oral membrane is thrown during contraction, and do not become obliterated during its dilatation. Each is the termination of a strong fold of the mucous membrane which runs parallel with the axis of the body, from the oral aperture to that by which the stomach communicates with the perivisceral cavity. Each fold is grooved, and represents a semicanal. The gastric epithelium is ciliated, at any rate partially, and doubtless secretes a powerfully solvent fluid, although M. Hollard (a) could obtain neither an acid nor an alkaline re-action from the mucus with which it is covered.

The stomach is kept in place by membranous mesenteric bands which extend from the roof of the perivisceral cavity to the parietes of the stomach on the one hand, and to those of the body on the other, terminating in a free arcuated edge internally and below, and dividing the perivisceral cavity into a corresponding number of chambers. These chambers, therefore, all communicate with one another below; above, each answers to, and passes into the cavity of, one or more tentacula, while in some species of Actiniæ additional means of communication between the chambers are provided in apertures which pierce the mesenteries themselves.

The mesenteries are arranged in pairs, the corresponding faces, marked by the arrangement of the muscular fibres which they contain, being turned towards one another. These muscular fibres are divided by M. Hollard into four distinct muscles. On the one face are two muscles, the one of which, small above and wide below, radiates obliquely from the parietes to the base of the perivisceral cavity; the fibres of the other are disposed transversely along the inner margin of this muscle. On the opposite face of the mesentery, are two other muscles—the one, narrow below and wide above, passes obliquely from the roof of the perivisceral cavity downwards and outwards to its parietes; the other runs along the inner edge of this, from the base of the tentacle to the floor of the perivisceral cavity, its fibres being nearly vertical, and diverging as they descend.

The lower and inner free edges of each mesentery give attachment to a curious subcylindrical cord which is much longer than the mesentery, and hence depends in loose coils and folds. The cord contains a canal in its axis which is said to open into the stomach, whence the whole apparatus has been regarded as a secreting organ. The walls of the canal are very thick, and contain a great number of thread-cells. It is very possible, therefore, that these coiled cords may be destined to act as offensive weapons against any living prey which the *Actinia* may swallow.

It is upon the faces of the mesenteries that the reproductive organs make their appearance as thickened bands, in which Ova or Spermatozoa are eventually developed; both products never, so far as we know at present, arising in a single individual. The males and females, which are distinguished by no external character, appear to be about equal in number.

As in the *Hydrozoa*, the body of the *Actinia* is essentially composed of two layers, an ectoderm and an endoderm; but in the larger Actiniæ the former is differentiated, according to Hollard, into a superficial epidermis and a deep dermal layer. The former consists of a superficial layer composed of polygonal cells frequently detached and renewed again, beneath which lies a granular layer, but separated from it by thread-cells and masses of pigment. In the deep dermal layer two sets of muscular fibres are found, a superficial circular, and a deep longitudinal set. These, like the others, are flattened, and exhibit no transverse striation.

In some *Actiniæ*, such as *A. mesembryanthemum*, bright blue sacs, whose structure requires further elucidation, are placed at the edges of the oral disk; while in *A. gemmacea*, *A. sessilis*, etc., clear spots are scattered over the integument, which have been regarded as apertures or tubercles. M. Hollard, however, states, that these are imperforate *ampullæ*, possessing a kind of bilabiate mouth, surrounded by a sphincter-like arrangement of muscular fibres. Any foreign body introduced into these ampullæ is seized and forcibly held, so that, if this account be correct, these organs may be compared to the *pedicellariæ* of the *Echinoderms*, or the *Avicularia* of the *Polyzoa*.

A gangliated nervous circle was affirmed by Spix to exist in the base of attachment of *Actinia*, but subsequent observations have not confirmed the statement; and unless the coloured tubercles upon the oral disc should turn out to be such, organs of sense appear to be equally absent.

The majority of the *Actiniæ* are oviparous, the young developed from ova impregnated within the perivisceral cavity of their parent, being evacuated by the mouth from the cavity of the stomach, into which they have made their way through its inferior aperture. The *Actiniæ* are capable of asexual multiplication by budding, and occasionally by fission, while their power of restoring themselves after mutilation appears to be as great as that possessed by the *Hydræ*. Like the *Hydræ*, again, though normally fixed, they are able to creep about upon their expanded disc of attachment, or even to float by its means upon the surface of the sea. Certain *Actinidæ* (*Actinectis*) are stated even to possess a basal "air-cavity," but the precise structure of this float-like apparatus does not appear to have been made out.

The great majority of the *Actinozoa* exhibit a structure closely corresponding with that of the *Actiniæ*, but from the manner in which they grow up into compound masses of associated zooids—produced by gemmation or by fission—they stand in nearly the same relation to *Actinia* as the compound *Hydrozoa* do to *Hydra*. A curious difference, however, in the numerical relations of their parts obliges us to separate the *Actinozoa* into two parallel series. In the one of these series, to which the *Actinia* itself belongs, and for which the term *Zoantharia* may be reserved, the number of tentacles, mesenteries, etc., is always either five or six, or some multiple of five or six. In the other division, that of the *Alcyonaria*, their number is some multiple of four. Again, in each of these series we find mutually representative subdivisions, according to the extent to which a skeleton or supporting framework is developed. This skeleton, the tissue of which (sclerenchyma) is ordinarily calcareous, is entirely (?) absent in some forms, such as the ordinary *Actiniæ* and the *Beroidæ;* in others, such as the *Zoanthidæ* and *Alcyonidæ*, it makes its appearance in the form of spicula, scattered loosely through the ectoderm. In other forms, such as the *Gorgonidæ*, *Pennatulidæ*, and *Antipathidæ*, the ectoderm of the base of the aggregate Actinozoon secretes a succession of horny epidermic layers, which accumulate one upon the other, so as to form eventually a rod-like or branched solid axis, enclosed by the cœnosarc, but, nevertheless, as much outside it as a viscus is external to the serous membrane which invests it. Calcareous matter may be deposited in the horny "sclerobasie" skeleton thus formed, either continuously, as in the red coral of commerce, or at intervals, as in the genus *Isis*; and a loose spicular deposit in the cœnosarc and its polypides may contemporaneously take place.

In the remaining families of the *Actinozoa* the calcareous

(a) Monographie Anatomique du Genre Actinia. Annales des Sciences Naturelles, 1851.

deposit commences in the form of detached spicula; but, these soon unite together, so as to form a network, which may ultimately, by increasing deposition, be converted into a solid and impervious mass. The firm and continuous skeleton thus formed is called a *Corallite* (b), so far as it corresponds with a solitary Actinozoon, or with the polypide (c) of a compound form, while the entire skeleton of one of the latter, consisting of the aggregate of corallites with their uniting substance, is termed a *corallum*. A fully developed corallite is a somewhat complex, more or less cup-shaped, body, whose structure may be best understood by comparing a *Cyathina* or a *Sarcinula* with the annexed diagram.

Fig. 2.

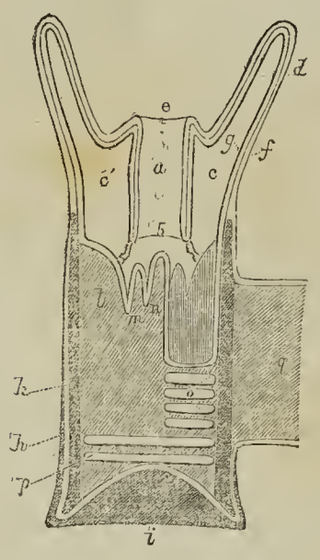


Diagram illustrative of the parts of the skeleton of a Coral and their relation to the soft parts.—*a*. Stomach. *b*. Aperture of communication between stomach and common cavity, *c*. Intermesenteric chamber. *c'*. Mesentery. *d*. Tentacle. *e*. Mouth. *f*. Ectoderm. *g*. Endoderm. *h*. Epitheca. *i*. Sclerobase. *k*. Theca. *l*. Septum. *m*. Palulus. *n*. Columella. *o*. Interseptal dissepiments. (The septum should be seen between them, but is left out for distinctness' sake.) *p*. Tabular dissepiments. *q*. Cœnenchyma (peritheca, etc.)

The wall of the cup corresponds with the parietes of the body within which it was developed, and is called the *theca*. Radiating from the theca towards its axis are a number of vertical plates, the *septa*, which divide the cavity of the theca into a corresponding number of chambers, the *loculi*. The axis itself is occupied by a columnar mass, the *columella*, and between the columella and the septa there are sometimes (*e. g.*, in the *Cyathininæ*) situated one or more rows of distinct vertical pillars, which may be regarded as dismemberments of the septa, and are called *paluli*. Ridges, the *costæ* occasionally run longitudinally down the outer wall of the theca, corresponding with the septa internally. If a *Cyathina* be cleft vertically, it will be found that the loculi extend without interruption between the septa for the entire length of the corallite. In the *Fungidæ*, however, minute processes, the *synapticulæ*, are developed from the faces of the septa, and unite with one another across the loculi. In the *Astræidæ*, the process of union of the septa has gone further, the loculi being divided by horizontal partitions, arranged at intervals one above the other; but not extending across the whole diameter of the corallite. These may be termed *interseptal dissepiments*, to distinguish them from others which exist in the millepores and in the rugose corals, stretch table-wise across the whole width of the corallite without interruption, and are called *tabular dissepiments*. Finally, in a solitary corallite, the basal part of the theca frequently becomes coated, with age, by a smooth layer, like a varnish, which Milne-Edwards and Haime consider to be a secretion of the epidermic layer of the ectoderm.

If a section be carried through a compound coral, the separate corallites will sometimes (many *Astræidæ*, *Porites*) be found to be in close contact with one another by their walls; but, in the greater number of cases, the corallites are united by a distinct substance interposed between their thecæ. This substance is called the *Cœnenchyma*; it is essentially a secretion of the cœnosarc, connecting the polypides, and its texture may present every variation, from open reticulation in *Montipora*, tubularity in *Heliopora*, and vesicularity in some *Millepores*, to the dense and solid mass which it presents in the *Oculinidæ*.

The manner in which the aggregation of zooids, constituting a compound coral, is developed from the primarily solitary Actinozoic embryo, of course, exercises an important influence upon the form of the Corallum. Sometimes, as in most *Turbinolidæ*, neither gemmation nor fission ever take place. In the *Oculinidæ*, gemmation alone occurs, and in these and other *Actinozoa* of the present day, the development of buds takes place either from the base or from the sides of a corallite, or from the cœnosarc. Certain of the extinct *Rugosa*, however, exhibit *calicular* gemmation, the buds being developed from the oral disc or cup of the polypide, which can hardly, under these circumstances, have retained any active vitality. The massive coralla of some *Cyathophyllidæ*, thus standing like inverted pyramids, all the buds supported upon the narrow surface of the primary zooid, have a very singular and striking aspect.

In the ordinary process of extension by fission, a polypide divides, and then two new and complete septal and thecal skeletons are built up upon the old one; but it sometimes happens, if one may speak figuratively, that the process of division of the polypides goes on faster than the building-up of the skeleton; so that when the soft parts are stripped away, the thecæ appear to run into one another; and this may be carried so far, that, as in the *Meandrinæ*, or brainstone corals, the skeleton exhibits nothing but a series of meandering channels or grooves divided into loculi by septa, but presenting no distinct thecæ.

The Polypides of the compound forms of *Actinozoa* differ in but few important particulars from Actinia. In the *Alcyonidæ* the genitalia are placed very far down upon the mesenteries, and the ova are few in number. In the *Tubiporidæ*, according to Dana, two only of the mesenterics are ovigerous. The same excellent observer states, that in both the *Astræidæ* and the *Fungiæ* the intermesenteric chambers of different Polypides communicate. In the *Fungiæ* the tentacles are small and irregularly scattered.

The *Beroidæ* appear at first to differ very widely from the type of structure which prevails among the other Actinozoa; but a close examination of any of their forms suffices to demonstrate the justice of the conclusion first advocated by Frey and Leuckart (Beiträge, p. 35,) as to their essential identity with *Actinia*.

The *Cydippe* (*oviformis?*) which abounds upon our own coasts, and is equally plentiful in all the other seas which I have visited, affords, from its small size and extreme transparency, an excellent subject for the student of the *Beroidæ*. The body has a regularly oval form, somewhat produced transversely around the aperture of the mouth, and is marked by eight longitudinal narrow flattened arcæ, which are widest equatorially and diminish to a point towards the poles, which they do not nearly reach. Each area is raised into a succession of transverse ridges, to every one of which a wide flattened paddle, composed of a number of large cilia, so united laterally as to work together—is attached. Looking down upon the body, its section is seen to be nearly circular, but divided into eight lobes, the two lobes opposite the edges of the flattened stomach being the widest, and separating the other six, which correspond in pairs, from one another. Four of the ciliated areæ are situated in the insections between the great lobes and the lateral smaller pairs; the other four are placed in the insections between these and the median lateral lobe. The centre of the latter lobe, again, which corresponds with the extremity of a plane drawn at right angles to that of the stomach, is occupied by a wide aperture through which a long tentacle is protruded. It will be readily understood from this description, that the *Cydippe* is not radially but bilaterally symmetrical, the plane of the stomach dividing the

(b) See for the most careful account of the structure of corals extant, the elaborate researches of MM. Milne Edwards and Haime, published at various times in the Annales des Sciences Naturelles, in the Memoires du Museum, and in the publications of the Palæontographical Society. The account which I have given of coral structure is based upon these admirable memoirs.

(c) The term "polypide" was applied by Prof. Allmann to the Polype-like zooids of the *Polyzoa*. In order to avoid the ambiguity of the word "Polype"—which has been applied, sometimes to the digestive organs of the *Hydrozoa*, sometimes to their whole bodies, sometimes to the entire bodies of the *Actinozoa*, at other times to the separate zooids of the compound forms,—I have reserved the word "Polype" for the digestive organs of the *Hydrozoa*, and have adopted "Polypide" for the polype-like zooids of the *Actinozoa*, as well as for those of the *Polyzoa*. The mass which unites the zooids in an Actinozoon is homologous with that which connects them in a Hydrozoon; I have, therefore, denoted it by the same term—Cœnosarc.

body into two symmetrical halves, each of which presents four ciliated areæ, and a tentaeuligerous canal. The mouth leads into a flattened stomach about one-fourth as broad as the body, and extending to or beyond the centre,—where it terminates in a transversely elongated aperture, opening into a wide cavity, which occupies the rest of the axis of the *Cydippe*, and is termed the "funnel" by Will (Horæ Tergestinæ). It corresponds with the common cavity of the body into which the intermesenteric chambers and the stomach open, in the *Actinidæ;* or, that into which the Polype and the canals of the natatorial organ pass in the *Lucernaridæ*. The eommon cavity of the body in *Cydippe*, however, differs from those just alluded to, in possessing two apertures, by which it communicates with the exterior. Five wide canals, in fact, take their origin from the common cavity; of these, one passes up in the axis of the body, and, at its dorsal pole, divides into two short branches, which terminate by corresponding fissures. Two other eanals pass vertically downwards on the flat faces of the stomach, to the neighbourhood of the mouth. The remaining two canals take a direction horizontally outwards, and perpendicular to the flattened faces of the stomach; they are very short, and enter the bases of the tentacles, giving off a branch on each side immediately before their termination. This branch passes obliquely upwards, and then divides again into two branches whieh run outwards, towards the ciliated areæ, and terminate in longitudinal canals which lie beneath these in their whole length. In *Cydippe* the canals do not appear to subdivide further or to unite; but in other *Beroidæ* they beeome mueh ramified, and form networks.

All these canals are, like the eorresponding eavities in *Actinia*, lined with vibratile cilia, by whose action the fluid which they contain, and which consists principally of sea-water mixed with the products of digestion, is kept in constant motion. The proper walls of the eanals are distinct, though thin and delicate, and can be traeed into continuity with the endoderm lining the stomach; on the other hand, the ectoderm is thick and gelatinous, filling up the intervals between the canals and constituting the principal mass of the body. Will has described a system of blood-vessels disposed along and external to the canals; but I have been as unable as other observers to detect any trace of such a system.

The tentacles are very long contractile eords, lodged in a subcylindrical cavity, excavated in the substance of the body, and extending from the termination of the horizontal eanal to a point distant about a third of the circumference of the body from the dorsal pole, where it ends in a wide aperture. The base of the tentacle is formed by a wide bilobed or cordate sac, with which the horizontal canal freely communicates; from the fissure between the two lobes superiorly, the stem of the tentacle arises; it is at first wide and flattened from side to side, but soon becomes cylindrical, and gives off delicate lateral filaments. The walls of the stem and filaments are double, consisting of the ectoderm and the endoderm, and containing a cavity continuous with that of the basal sac. The latter is highly contractile, and probably, by foreing the liquid which it contains into the tentacle, produces its extension and protraction, retraction being accomplished by the action of the parallel fibres, which may be detected in the ectoderm of the stem of the tentacle. The stem and its branches are thickly coated with a layer of granular masses about $\frac{1}{5000}$ of an inch in diameter, in which I was unable to detect any thread. These granular bodies are, indeed, according to Will, nothing but delicate filamentous ramuscules of the branches of the tentacle, retracted and coiled up. So far as I am aware, thread cells having the same complex structure as those in the *Actinidæ* have not yet been observed in the *Beroidæ*.

The reproductive organs of the *Beroidæ* were shown by Will to consist of thiekenings of the lateral walls of the longitudinal eanals placed beneath the ciliated areæ. Here the generative products are developed beneath the endoderm, and, probably, becoming diseharged into the canal, they are eventually carried out through the dorsal apertures. The *Beroidæ* are hermaphrodite, the one wall of each eanal giving rise to testieular, the other to ovarian thickenings.

The dorsal face of the body is slightly depressed between the apertures of the vertical canal; and in the depression, which is bounded laterally by two folds, an oval sac, or lithocyst, is situated, eontaining a mass of strongly refracting granules, of about $\frac{1}{3000}$th of an ineh in diameter. The whole strueture closely resembles that of the lithocyst in the Steganophthalmatous *Lucernaridæ*. Small coloured granules are deposited around this organ, and beneath it is a body which has been regarded by Milne Edwards and Will as a nervous ganglion. The latter considers that he has traced nervous cords from this ganglion down to the stomach, and to the walls of the longitudinal canals.

Fig. 3.

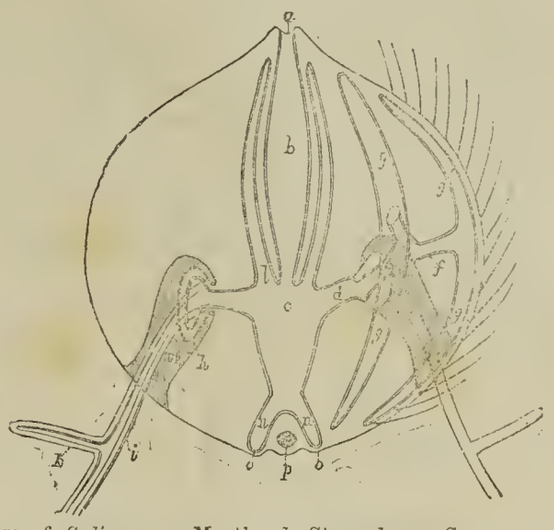


Diagram of *Cydippe*.—*a*. Mouth. *b*. Stomach. *c*. Common cavity. *d*. Horizontal canal. *e*. One of its bifurcations, dividing again at *f* into two branches, which open into the longitudinal canals—*g*. parallel with which the ciliated area runs. *h*. Sac of the tentacle. *i*. with one of its branches *k*. *l*. Canal running downwards by the side of the stomach. *m*. Tentaculigerous canal. *nn*. Apical canals, opening at *o*. on each side of *p*. The ganglion and lithocyst.

If we now compare the structure of *Cydippe* with that of *Actinia*, we shall find that (as Frey and Leuckart have particularly pointed out) they closely agree in their main and structural peculiarities. In each the stomach opens at its extremity into a common cavity, whence canals are given off, which run between the stomach and the parietes. In *Actinia* the partitions between these canals are very thin, and constitute the mesenteries, the canals themselves being very wide. In the *Cydippe*, on the other hand, the canals are comparatively narrow, and the walls which divide them, corresponding with the mesenteries, are very thick. The reproductive organs are, in each case, developed from the walls of the eanals. The tentaele of the *Cydippe* is not a wider deviation from the type of the Actinia, than that of the *Diphyes* is from the more ordinary form of prehensile organ in the *Hydrozoa*. The nervous system and lithocyst of *Cydippe* appear to be the only parts unrepresented in the *Actiniadæ;* for, according to Milne Edwards and Haime, the genus *Minyas*, which belongs to the latter division, has an aperture in the middle of the pedal disc, which communicates with the cavity of the body.

It is impossible to enter here into the varieties of form presented by the *Beroidæ*, and which chiefly arise from the development of lateral lobes, a process which is carried to so great a length in *Cestum* that the body becomes ribbon-like.

The habits of the *Actinozoa* deserve the especial attention of the zoologist, the physical geographer, and the palæontologist. All are marine. The *Beroidæ* and the *Actinidæ* inhabit the shallower and even the deeper parts of all seas; the *Alcyonidæ* and *Gorgonidæ* are found at considerable depths, *Corallium* having been taken in 120 fathoms, and *Gorgonia* in 160, and abound both in cold and in warm latitudes. The *Perforata* and *Tabulata* almost exclusively haunt the shallower parts of warm seas; but among the former the *Eupsammidæ* extend to the polar regions and to depths of 200 fathoms. So, again, the *Aporosa* are for the most part confined to the shallows of hot seas, but the *Turbinolidæ* extend into very cold regions. The whole group of the *Rugosa* is now extinct, only one genus, *Holocystis*, having survived even the palæozoic period; and we have no means of judging what climatal conditions they may have required.

Among the coral-forming *Actinozoa* of the present day there are some which are solitary in habit, others which are social, growing together in great fields, and forming what are called "coral-reefs." The latter are restricted within that compara-

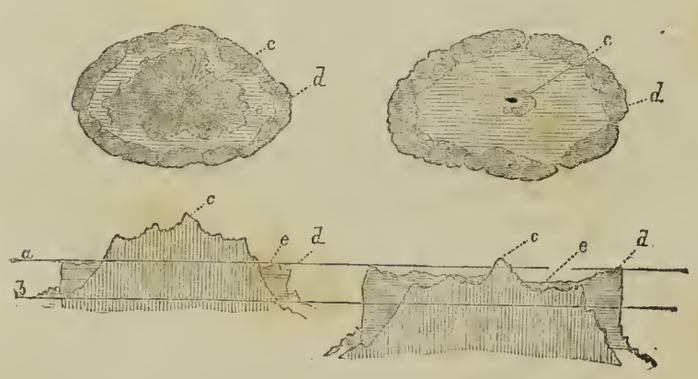
tively narrow zone of the earth's surface which lies between the isotherms of 60°, or, in other words, they do not extend for more than about 30° on either side of the equator. It is not conditions of temperature alone, however, which limit their distribution; for within this zone the reef-builders are not found alive at a greater depth than from fifteen to twenty fathoms, while at the equator an average temperature of 68° is not reached within a depth of 100 fathoms.

Not only heat, then, but light, and probably rapid and effectual aeration, are essential conditions for the activity of the reef-building Actinozoa. But, even within the coral zone, the distribution of these corals appears to be singularly capricious. None are found on the west coast of Africa, very few on the east coast of South America, none on the west coast of North America; while in the Indian Ocean, the Pacific, and the Caribbean Sea, they cover thousands of square miles. It is by no means certain, however, that any one species of West India reef coral is identical with any East Indian species, and the corals of the central Pacific again differ very considerably from those of the Indian Ocean.

Different species of Corals exhibit great differences as to the rapidity of their growth, and the depth at which they flourish best; and no one must be taken as evidence for another in these respects. Certain species of *Perforata*, *Madreporidæ*, and *Poritidæ*, appear to be at once the fastest growers, and those which delight in the shallowest waters. The *Astræidæ* among the *Aporosa*, and *Seriatopora* among the *Tabulata*, live at greater depths, and are probably slower of increase.

Under the peculiar conditions of existence which have just been described, it would seem easy enough to comprehend, *à priori*, the necessary arrangement of coral reefs. As the reef-building *Actinozoa* cannot live at greater depths than twenty fathoms, or thereabouts, it is clear that no reef can be originally formed at a greater depth below the surface, and such a depth usually implies no very great distance from land. Furthermore, we should expect that the growth of the coral would fill up all the space between the shore and this furthest limit of its growth; so that the shores of all land in coral seas would be fringed by a sort of flat terrace of coral, covered, at most, by a very few feet of water; that this terrace would extend out until the shelving land upon which it had grown was covered by a depth of some twenty fathoms of sea, and that then it would suddenly end in a steep wall, whose top and upper parts would be crowned with overhanging ledges of living coral, while its base would be hidden by a talus of dead fragments, torn off and accumulated by the waves. Such a "fringing reef" as this, in fact, surrounds the island of the Mauritius. The beach here does not gradually shelve down into the depths of the sea, but passes into a flat, irregular bank, covered by a few feet of water, and terminating at a greater or less distance from the shore in a ridge, over which the sea constantly breaks, and whose seaward face slopes at once sheer down into fifteen or twenty fathoms of water.

Fig. 4. Fig. 5.



Diagrams representing Fig, 4 (a fringing reef) and Fig. 5 (an encircling reef).—*c*. Highest point. *e*. Shore of Island. *d*. Reef fringing in Fig. 4, but by depression converted into the encircling kind in Fig. 5. Further depression would convert Fig. 5 into an atoll.

If we examine the structure of this reef it will be found to vary at different distances from the land and at different depths in its seaward face. The edge beaten by the surf will be found to be composed of living masses of *Porites* and of the coral-like plant, the *Nullipore;* deeper than this is a zone of *Aporosa* (*Astræidæ*), and *Tabulata* (*Seriatopora*); and deeper still we find all living coral ceases; the lead bringing up either dead branches or showing the existence of a flat, gently sloping floor, the true sea bottom, covered with fine coral-sand and mud. Passing from the edge of the reef landwards, the *Poritidæ* cease, and are replaced by a ridge of agglomerated dead branches and sand, coated with *Nullipore;* the floor of the shallow basin, or lagoon, is formed by a mass of conglomerate, composed of fragments of coral cemented by mud; and on this masses of *Meandrina* and *Fungia* rest and flourish, exhibiting the most gaudy coloration, and sometimes attaining a great size. In storms, masses of coral are hurled on to the terrace of the reef, and there gradually increase the mass of rocky conglomerate; but in no other way can a fringing reef, which has once attained its limit in depth, be said to increase in size, unless, indeed, the talus accumulating at the foot of its outer wall should ever rise sufficiently high to afford a footing for the corals within their prescribed limits of depth.

Such is the structure of a fringing reef; but the great majority of reefs in the Pacific are very different in their character. Along the north-eastern coasts of New Holland, for instance, a vast mass of reefs runs at a distance varying from a hundred to ten miles from the shore; and forming a mighty wall or barrier against the waves of the Pacific. At a few hundred yards outside this barrier reef no bottom can be obtained with a sounding line of a thousand fathoms; between the reef and the main land, on the contrary, the sea is hardly ever more than thirty fathoms deep. Many of the islands of the Pacific, again, are encircled with reefs corresponding exactly in their character with the barrier reef; separated, that is, by a corresponding shallow channel from the land, but facing the sea with an almost perpendicular wall sinking down into an enormous depth.

Finally, in many cases, especially among the single reefs which, taken together, constitute the great Australian barrier, there is no trace of any central island; but a great circular reef, usually having an opening on its leeward side, stands out in the midst of the sea. These reefs, apparently unconnected with other land, are what are called Atolls.

How have these barrier reefs, and encircling reefs, and atolls been formed? It is certain that the fabricators of these reefs cannot live at a greater depth than in the fringing reefs. How can they have grown up then from one thousand fathoms or more? Why do they take so generally the circular form? What is the connexion, finally, between fringing reefs and atolls? The only thoroughly satisfactory answer to these questions has been given by our distinguished countryman, Mr. Darwin, from whose beautiful work on Coral Reefs I have already borrowed most of the foregoing details. Consider for a moment what would be the effect of a slow and gradual submergence of the island of Mauritius—a submergence, perhaps, of a few feet in a century (at any rate, not greater than the rate of upward growth of coral) continued for age after age. As the edge of the fringing reef sank, new coral would grow up from it to the surface; and, as the most active and important of the reef builders flourish best in the very surf of the breakers, so the margin of the reef would grow faster than its inner portion, and the discrepancy would increase as the latter, sinking deeper and deeper, became further removed from the region of active growth. Nevertheless, the sea bottom within the reef would tend constantly to be raised by the accumulation of fragments and by the deposit of fine mud, in its sheltered and comparatively dead waters. On the other hand, on the seaward face of the reef, no possible extension could take place by direct growth, and that by accumulation must be exceedingly slow, the incessant wash of tides, waves, and currents tending constantly to spread any talus over a wider and wider area.

Thus, then, the edge of the reef unceasingly compensates itself for the depression which it undergoes, while, inside the reef, only a partial compensation takes place, and outside hardly any at all. Continue the sinking process until "Peter Botte" was but a few hundred feet above the surface, and all that would be left of Mauritius would be an island surrounded by an encircling reef; carry on the depression further still, and a circular reef or atoll alone would remain. But the region of the coral reefs is, for the most part, that of constant winds. During the whole process of growth of the reef, therefore, one of its sides—that to windward—has been exposed to more surf than that to leeward. Not only will the greater quantity of débris, therefore, have been heaped up by storms

upon the windward side, but the coral builders themselves will here have been better fed, better aerated, and consequently more active. Hence it is that other things being alike, there is a probability that the leeward side of the reef will grow more slowly, and repair any damages less easily, than the windward side; and hence, again, as a result, the known fact, that the practicable channels of entrance into encircling reefs or atolls are usually to leeward.

That the earth's crust does slowly undergo changes of level over great areas, in the way required for Mr. Darwin's hypothesis, is a fact familiar to every geologist, and strong evidence that its level has so changed over the particular areæ in which encircling barrier-reefs and atolls are found, is brought forward in Mr. Darwin's work—a book which will repay your most careful study, if only as a striking example of the manner in which Geology and Natural History may be made to elucidate one another.

The winds and waves are singularly aided in grinding down the corals into mud and fragments by the *Scari* and *Holothuriæ* which haunt the reefs; the former browsing upon the living Actinozoa, with their hard and parrot-like jaws, and passing a fine calcareous mud in their excrements; the latter more probably, swallowing only the smaller fragments and mud, and having extracted from them such nourishment as they may contain, casting out a similar product. It is curious to reflect upon the similarity of action of these worm-like *Holothuriæ* upon these sea-meadows of coral, to that which the Earthworms, as Darwin has shown, exert upon our land meadows!

In the Palæozoic period, more particularly during the ages in which the carboniferous limestone was deposited, reefs like those which have just been described appear to have abounded in our own latitudes; and there is the most striking superficial resemblance between the masses of coral limestone, hard enough to clink with a hammer, which are now being formed in the Pacific, by the processes of accumulation of coral mud and fragments, and their consolidation by percolating water, and the ancient beds of stone which lie at the bottom of the Carboniferous series. Closer examination, however, shows an important difference in the nature of the corals which compose the two reefs. The modern limestones are made up of *Perforata*, *Tabulata*, and *Aporosa*. The ancient ones contain *Tabulata*, but usually neither *Perforata* nor *Aporosa*,—both these groups being replaced by the *Rugosa*, none of whose members (with a doubtful exception) have survived the palæozoic period. On the other hand, *Palæocyclus* and *Pleurodictyon* (a) are the only genera belonging to the *Aporosa* or *Perforata*, which have yet been discovered in strata below the mesozoic. Here, then, is an almost complete replacement of one great group of animal life by another; but the boldest progressionist would hardly venture to assert that the *Rugosa* are inferior in organization to the *Tabulata* and *Perforata*.

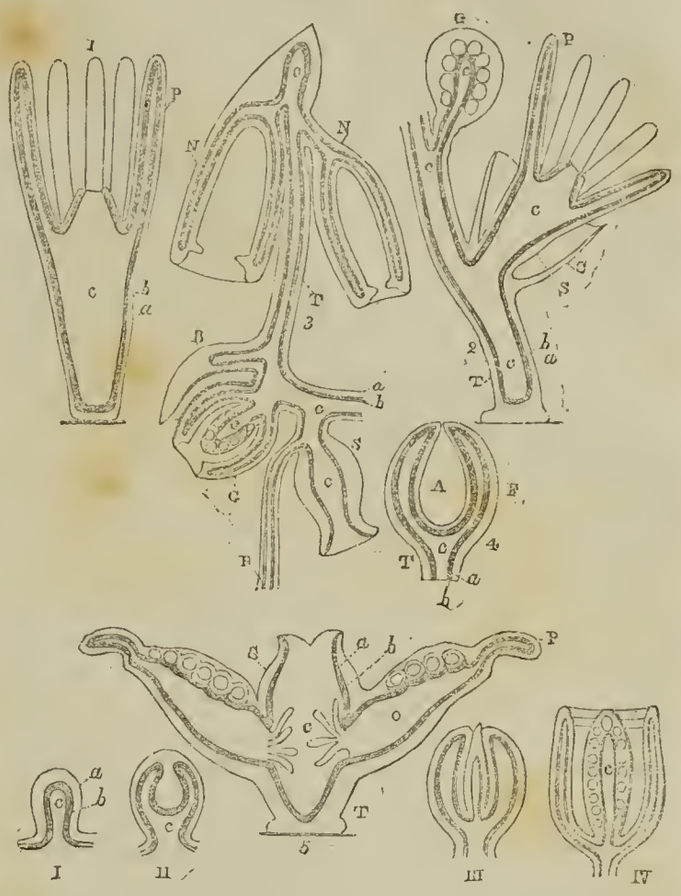
CLASSIFICATION OF THE ACTINOZOA.

Septa, etc., × 5 or 6.	Septa, etc., × 4.
Simple—Soft-bodied.	
1. Actinidæ.	1. Beroidæ.
Actinia. Minyas.	*Cydippe. Cestum.*
Compound—Skeleton spicular.	
2. Zoanthidæ.	2. Alcyonidæ.
Zoanthus.	*Alcyonium.*
Compound—Skeleton sclerobasic.	
3. Antipathidæ.	3. Gorgonidæ.
Antipathes.	*Gorgonia. Isis. Corallium.*
Compound and simple—Skeleton thecal, continuous.	
4. Perforata.	4. Tubiporidæ.
Porites. Madrepora.	*Tubipora.*
5. Tabulata.	5. Rugosa.
Millepora. Seriatopora.	*Stauria. Cyathaxonia.*
6. Aporosa.	*Cyathophyllum.*
Cyathina. Oculina.	*Cystiphyllum.*
Astræa. Fungia.	

(a) I must venture to express my dissent from the view which Professor King has lately taken of this curious genus. I hope to take an early opportunity of bringing forward the evidence in support of its truly Actinozoic nature, which is afforded by some recent corals.

Fig. 6.

This cut was accidentally omitted in the last Lecture.



Diagrams illustrative of the mutual relations of the *Hydrozoa*.—1. Hydra. 2. Sertularian. 3. Diphyes. 4. Physophorid. 5. Lucernaria.
a. Ectocyst. *b*. Endocyst. *c*. Their enclosed cavity.
P. Tentacles. N. Natatorial organ. T. Cœnosarc. B. Bract. C. Cell. S. Polype. G. Reproductive organ. A. Air Vesicle. F. Float.
I., II., III., IV. represent the successive stages of development of a Medusiform zooid or reproductive organ.

Errata in Lecture IV.—P. 563, 1st column, for "cortication" read "urtication;" for "sub-kingdoms" read "sub-divisions." P. 565 2nd column, Fig. 1, "D" belongs to *Sphenia*.

ORIGINAL COMMUNICATIONS.

JERSEY HOSPITAL REPORTS.

EXTENSIVE CARIES OF THE LEFT TIBIA—ALSO OF THE UPPER THIRD OF FIBULA—DISLOCATION OF THE HEADS OF BOTH BONES BACKWARDS—EXCISION OF THE KNEE-JOINT, ETC.—RECOVERY, WITH THE PERFECT USE OF THE LIMB.

By G. M. JONES, Surgeon.

Did not the following case present features of more interest than any of those in which I have performed the operation of excision of the knee-joint, or in those recorded by others, which have come to my knowledge, I should now merely state that I had again performed this operation, together with its result, for it appears to me that it is only by collecting cases, whether favourable or otherwise, that we are enabled to arrive at a just conclusion respecting the merits or demerits of an operation.

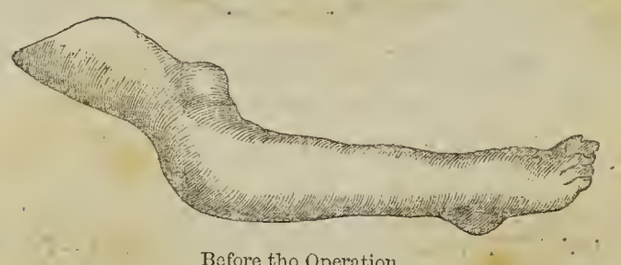
I am willing to confess that the extensive caries of the tibia; and the disorganised condition of the knee, would have de-

terred me from choosing such a case for a *coup d'essai;* experience had, however, taught me, that life is no more endangered after excision than by amputation; that even if the former fail, the latter can be had recourse to with as reasonable a chance of success as if no attempt to save the limb had been made; but, above all, I had so frequently witnessed the extraordinary reparative powers of nature, and more particularly at an early age, or before puberty, that I determined to test them, and with what amount of success will presently be seen.

I regret to find there still exists great prejudice against excision of the knee-joint, and that some of the first Surgeons, men whose names will live as long as Surgery is regarded as a science, rank among its greatest opponents; but it is a pleasing reflection, on the other hand, that equally bright ornaments of our Profession, those whose names, too, will grace some of the most glorious pages in the annals of Conservative Surgery, uphold this operation; these draw their deductions from practical experience, while many who denounce it have never performed the operation, nor witnessed its performance; have never seen a case to judge of its result, have never even tried it on the dead subject. Ask them why they reprobate it?—why they regard it as unsurgical and wrong? and, unless I am much mistaken, they will be obliged in fact, though, perhaps, not actually in word, to confess they have no other than a woman's reason—"I think it so because I think it so" (a).

Further remarks are unnecessary; I will merely add that, whereas previously to this period, I should have advocated the practice of excision only in cases which appeared most favourable for the operation, I now feel that it may with safety be adopted in many of those which seem to offer but little encouragement to success.

Elizabeth Noel, aged 9, was admitted into the Hospital, August 16th, 1855; but little of her previous history can be collected, as an uncle (the only relation she has) left this island the following day. It would, however, appear that for nearly two years she had been unable to walk without crutches; that poultices of various kinds, but mostly composed of herbs, were applied to her knee and leg at some small village on the coast of Brittany, where she had resided for some years, and that, in consequence of her helplessness and increasing bad health, she was sent to this, her native place, for parochial relief, but more especially to have the affected limb removed. The child's appearance indicated a strumous diathesis; there was considerable emaciation; her appetite was very indifferent; pulse 106; nights sleepless; and the glands of the neck were enlarged. The affected leg and knee presented an extraordinary appearance, of which some idea may be formed from the following drawing copied from a photograph taken the day before the operation. The tibia was dislocated backwards, its head being thrust completely into the ham; the popliteal vessels were thus rendered easily perceptible; the patella, which rested in the interspace between the condyles of the femur and head of the tibia, was so atrophied as to be scarcely distinguishable; the head of the tibia was much expanded, also the whole shaft of the bone generally, and the integuments were in a state of *gonflement;* an open suppurating surface existed along its entire length, the bone being exposed in many parts, and distinguishable by the probe everywhere; several fistulous apertures existed laterally and posteriorly, three also along the fibula on its outer aspect; the probe detected bone in all of them. There existed an immense amount of lateral motion in the dislocated joint; the muscles of the thigh were much atrophied; the motions of the ankle-joint were natural. Four days after the child's admission, the following operation was performed while the patient was under the influence of chloroform.



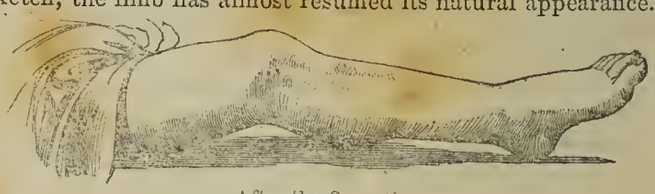
Before the Operation.

An incision beginning just below the patella was carried downwards along the almost entire length of the tibia. It was made in rather a zigzag manner, in order to include as many of the fistulous openings as possible; the integuments were then dissected on either side of the bones, so as to expose the diseased parts thoroughly. In many places the tibia was found divested of its periosteum, in others it was thickened and rough; while at its upper and lower thirds it was so softened as to necessitate scooping out to a considerable depth before healthy cancellous structure was met with; the gouge and chisel had therefore to be freely employed throughout (b). After removing as much diseased bone as could be seen, the next step was excision of the knee-joint. This was performed, first by making a horse-shoe flap, and then proceeding in the manner generally followed, though the extremely disorganized state of the joint rendered the removal of those parts which compose it much more difficult than is ordinarily the case (c). A large portion of the joint-ends had to be removed; likewise the head of the fibula, and a large sequestrum from the upper third of this bone. The patella, after gouging its under part, was left. No vessel required ligature, though the hæmorrhage was at times rather considerable.

State of the Joint.—On opening the joint, extensive pulpy degeneration of the synovial membrane was met with; the cartilages covering the ends of the bones presented unmistakeable traces of former disease; the semi-lunar cartilages were partially absorbed, the remaining portions disorganized; the anterior crucial ligament gone, the posterior one much absorbed, and consequently thinner than usual; the tissues generally sound. The joint was tolerably healthy.

After the operation the leg was placed in a suitable box, and kept steady by means of pads, etc. Water-dressing applied; neither sutures nor adhesive straps were employed.

It would be a work of supererogation, and tend to no practical purpose, to give anything like a daily account of the progress of this case from the time of the operation to the period of cure: suffice it to say, that everything progressed most favourably, and never for a moment did a single symptom occur to cause the slightest anxiety. At the expiration of ten days there was an evident melioration in the little patient's health; five weeks after the operation she was able to raise the whole limb; and three weeks after this, went about the wards on crutches; scarcely three months elapsed when she moved about without any appliances to the knee. The affection of the tibia and fibula did not keep pace with that of the joint; the healing process was much more gradual, owing to occasional sequestra coming away, which naturally kept up some irritation and discharge. For some time past, the child has been in perfect health, strong and stout, and can walk quickly about with her little companions. Water-dressings, with the exception of the occasional use of the dilute nitric acid lotion, were the only local applications employed throughout. The most nutritious food, and an abundant quantity of wine and malt liquor was taken; also quinine, syrup of iodide of iron, and cod-liver oil. The child, as I have already stated, walks well. Cicatrices have replaced running sores; and, as will be seen by the accompanying sketch, the limb has almost resumed its natural appearance.



After the Operation.

(a) These observations are not made unadvisedly, for even very lately I met a Medical man who was most positive in his language against all excisions. When asked his motive and his grounds of objection, he answered with much *nonchalance*, "that he had never seen a case, but that he nevertheless felt sure the operation was a bad one."

(b) For some years I have not operated on joints or bones without having near me several of the tools employed by wood-carvers, and can highly recommend their utility in some cases. Those who have watched carvers at their work must have observed how admirably adapted are some of their tools for taking away some portions without injuring those they are anxious to preserve; so their occasional use in Surgical operations prevents the unnecessary dividing of soft parts, and are often of far greater utility than those made for Surgical purposes.

(c) This difficulty would have been greatly increased had I not been in possession of the valuable saw given me by the Inventor, my esteemed friend, Mr. Butcher of Dublin, to whose unwearied exertions in the cause of Conservative Surgery—which cause his great talents so eminently qualify him to advance, I am happy to have this opportunity of bearing my humble testimony,

THE LONDON

PRACTICE OF MEDICINE AND SURGERY.

STATISTICAL REPORT OF THE PRINCIPAL OPERATIONS PERFORMED DURING MARCH AND APRIL.

(Continued from page 603.)

The subjoined report includes, as usual, the following Hospitals:—University College, King's College, St. Bartholomew's, St. George's, Guy's, St. Thomas's, the London, the Middlesex, the Westminster, Charing-cross, St. Mary's, the Metropolitan Free, the Marylebone, the Hospital for Sick Children, and the Dreadnought Seamen's Hospital.

EXCISION OF THE BREAST, OR OF TUMOURS CONNECTED WITH IT.

Case 1.—St. Bartholomew's: Mr. Paget.—A woman, aged 46; cancer of the breast, and of one axillary gland. Excision of whole breast and of the diseased gland. Recovered. *Case* 2.—The London: Mr. Adams.—A girl, aged 18, admitted on account of a pendulous tumour, larger than a fist, involving the whole breast, nodulated externally, and over which the skin was ulcerated in several places. Excision. Recovery. The growth proved to be a chronic mammary tumour, the glandular tissue in which was very imperfectly developed. *Case* 3.—Guy's: Mr. Birkett.—A woman, aged 46; the disease consisted in cystic dilatations of the ducts, and affected the greater part of the glands, having existed for four years. Excision of the entire gland. Recovery. *Case* 4.—The Metropolitan Free: Mr. Borlase Childs.—A woman, aged 43, under care on account of a nodular enlargement of three years' duration. The disease proved to be cystic dilations of the ducts with solid intra-cystic growths. Excision of the whole gland. Recovery. *Case* 5.—Guy's: Mr. Birkett.—A woman, aged 40. Excision of a portion of the gland on account of a small scirrhous mass of eighteen months' duration. Recovered. *Case* 6.—Guy's: Mr. Birkett.—A healthy woman, aged 5. Ulcerated cancer of the breast of four years' duration. Excision of the whole gland. Recovery. *Case* 7.—Guy's: Mr. Birkett.—A woman, from whom, in November last, a chronic mammary glandular tumour (adenocele) had been removed. A secondary growth had now existed for two months. It was excised, and did not present, on examination, any characters of cancer, but appeared to be a form of glandular tumour. Recovered. *Case* 8.—The Middlesex: Mr. De Morgan.—A woman, aged 50. Scirrhus of the breast, of three years' duration. The whole breast was excised, as also some enlarged glands from the axilla. Recovered. *Case* 9.—St. George's: Mr. Pollock.—A woman, aged 24.—Excision of a chronic mammary glandular tumour. Recovery.

EXCISION OF PART OF THE TONGUE.

The Westminster: Mr. Guthrie.—A man, aged 70, suffering from epithelial cancer of the tongue, which had commenced three months before at the tip, and was gradually spreading up the side. There was no enlargement of the glands. About a third of the organ, comprising the left side and tip, was excised. Three or four bleeding vessels were secured by ligatures, and the actual cautery applied. No subsequent hæmorrhage. Recovered.

EXCISION OF NON-MALIGNANT TUMOURS.

Cases 1 and 2.—Bursal tumours in front of the patella, of long duration, and almost solid. In each case excision was practised, and the wound healed well. *Case* 3.—St. Bartholomew's: Mr. Paget.—A man, aged 27, admitted on account of a tumour, the size of a turkey's egg, in the sheath of the rectus, just below the umbilicus. It was believed to have been caused by an injury fourteen years before. Several smaller masses of similar deposit were in the adjacent tissues. The whole were excised, and, on examination, proved to be a form of fibro-nucleated growth. Recovered. *Case* 4.—St. Bartholomew's: Mr. Paget.—A lad, aged 16, in delicate health. A tumour of large size was removed from the back of the thigh, where it had connexions with the deep muscles. It proved to be a growth of altered muscular structure. After the operation, erysipelas occurred, and subsequently there was bleeding from the wound. He sank into a very feeble state, and died on the seventh day. *Case* 5.—The "Dreadnought:" Mr. Busk.—A man of colour, aged 28, admitted on account of a tumour, the size of a small egg, connected with the lower angle of the right scapula; its existence had been discovered only a week before, but it had evidently been of slow growth. There had been no recent injury. The mass together with the portion of bone to which it was attached, was removed. It proved to be a "muscular tumour," connected with the periosteum. Under the microscope, it showed muscular tissue in every stage of degeneration, that being most advanced in change which was nearest to the bone. It had no distinct capsule, and the muscular tissue surrounding it was hard and fibrous. Under treatment. *Case* 6.—Guy's: Mr. Birkett.—A woman, aged 23. An epulis, of fourteen months' duration, involved the two bicuspid teeth in the left side of the lower jaw. Free incision. Under the microscope, the growth showed the characters of myeloid tumours. Recovered. *Cases* 7, 8, 9, 10, 11, and 12.—In these, fatty tumours of considerable size were excised. In all, the patients recovered. *Cases* 13, 14, and 15.—In these sebaceous tumours were removed. In all the patients recovered. *Case* 16.—Guy's: Mr. Cock.—A boy, aged 12. Excision of a keloid growth in the skin of the neck, about the size of half-a-crown. The wound healed well. *Case* 17.—University College: Mr. Erichsen.—A lad, aged 14, under care on account of a very large cystic tumour in the thigh. It had previously been punctured three times, and was now the size of an adult head. Excision by a difficult and prolonged dissection was practised. The tumour was found to grow from the adductor magnus. The lad sank, and death took place on the third day. *Case* 18.—St. George's: Mr. Tatum.—A man, aged 36, under care on account of a large fibro-plastic tumour of the parotid gland, of ten years' duration. The growth involved the zygoma and the malar bone, and passed beneath the ramus of the jaw. It had been twice operated on in other Hospitals; and on one occasion, for the arrest of secondary hæmorrhage, the common carotid had been tied. Mr. Tatum excised the entire mass, excepting a small portion that dipped too deeply behind the ramus of the jaw, and could not be safely removed. The malar bone, including part of the floor of the orbit, was removed. Many arteries were cut through, and required ligature, among others the external carotid itself; the hæmorrhage was, however, not very profuse. In the subsequent treatment, most, if not all, of the small portion left behind sloughed out under the use of escharotics. The wound healed well.

EXCISION OF MALIGNANT TUMOURS.

Case 1.—St. Bartholomew's: Mr. Paget.—A man, aged 56. An epithelial cancer of the lower lip of small size. Excision. Recovery. *Case* 2.—Guy's: Mr. Cock.—A man, aged 49.—Epithelial cancer of the inside of the cheek, of ten months' duration, and involving also the angle of the mouth. The whole was freely excised, and the wound healed well. No glands were enlarged. *Case* 3.—King's College: Mr. Fergusson.—A man, aged 39. Three times before operated on, on account of a malignant polypus of the nostril. The nostril was slit up, and the growth extracted by forceps. *Case* 4.—King's College: Mr. Fergusson.—A man, aged 70. Epithelial cancer of the cheek, of two years' duration, and very large size. Free excision. Recovery. *Case* 5.—St. Bartholomew's: Mr. Lawrence.—A man, aged 64. The cavities of both nares were distended by a large malignant growth, which projected at the nostrils, and could be felt from behind the palate. The nostrils were slit, and the growth removed, together with the portions of bone to which it was united. The parts quickly healed, but the disease is returning. *Case* 6.—St. Bartholomew's: Mr. Lawrence.—A woman of middle age. A scirrhous gland of small size under the axilla was removed. Recovered. *Case* 7.—The Metropolitan Free: Mr. Hutchinson.—A man, aged 43.—Epithelial cancer of small size on the cheek. Excision. Recovery.

AMPUTATION OF THE PENIS.

Case 1.—St. Bartholomew's: Mr. Lawrence.—A man, aged 40, who had been previously operated on elsewhere for epithelial cancer beginning in the prepuce. The disease had returned. Amputation of the whole organ. Recovery. *Case* 2.—Guy's: Mr. Cock. A man, aged 62, in good health,

the subject of congenital phymosis. Cancer of the penis had existed eighteen months, and was very extensive. Amputation of the organ high up. Recovery.

OPERATIONS FOR NÆVUS.

In two cases, one under the care of Mr. Lawrence, and the other under that of Mr. Cock, nævi of very large size have been treated by the injection of the perchloride of iron. In both benefit has been obtained, but the cure is as yet incomplete. In six others the more usual procedures by ligature have been adopted.

TRACHEOTOMY AND LARYNGOTOMY.

Case 1.—University College: Mr. Erichsen.—A man, aged 32. Laryngotomy was performed, on account of chronic syphilitic disease of the larynx threatening suffocation. Recovery. *Case* 2.—The Hospital for Sick Children.—A boy, aged 3 years, was admitted, on March 29, with croup. The symptoms were reported to have commenced three days previous to admission. Tracheotomy was performed by Mr. Walter Chippendale, the House-Surgeon, on the 31st. The case progressed favourably up to the thirteenth day, when the child became suddenly depressed, and sank in a few hours. The tube had been finally removed on the tenth day. On post mortem examination, the opening into the trachea was found to have ulcerated from the second ring to within an inch of its bifurcation, measuring an inch and a-half in length. The interior of the larynx was coated with an imperfect and very thin layer of softened and easily detached false membrane. *Case* 3.—Guy's: Mr. Callaway.—A man, aged 50.—Malignant disease of the larynx and trachea of two months' duration. Repeated attacks of spasmodic dyspnœa had threatened suffocation, and during one of these tracheotomy was performed. The relief afforded by the operation was complete, but death from lobular pneumonia followed forty-eight hours afterwards. The tube had been retained the whole time. The autopsy showed evidences of lobular pneumonia and pleurisy. About four inches below where the operation had been performed was an opening communicating with the œsophagus.

EXCISION OF THE CERVIX UTERI.

The Metropolitan Free: Mr. Hutchinson.—A woman, aged 47, stout and pale, was admitted on account of uterine symptoms. A pedunculated mass, about two inches long, was found to grow by a broad base from the os uteri. It had occasioned much bleeding at times, and was believed to have been growing for about six months. It was of soft structure, and very easily came away into the polypus forceps. Its base was surrounded by fungating growths, the diseased surface being about the size of a penny piece. Examination with the microscope confirmed the opinion that it was of cancerous nature; and, as no secondary tumours could be found, and the body of the uterus itself appeared healthy, it was determined to excise the diseased part. This was done; the excision removing the anterior lip high up, and leaving almost the whole of the posterior. The actual cautery was applied immediately afterwards to arrest hæmorrhage, and the vagina was plugged with sponge. Some oozing of blood continued during about three hours, but it was not excessive. The parts healed well, and in about a fortnight the patient was able to leave her bed. At the present time (two months after the operation), the parts remain soundly cicatrised, and there are no indications of return of the disease.

REMOVAL OF LOOSE CARTILAGE FROM THE KNEE-JOINT.

Guy's: Mr. Birkett.—A man, aged 22, had suffered for some months from a small loose cartilage in the right knee-joint. On April 1, Mr. Birkett operated by the subcutaneous incision, intending to bring the cartilage into the cellular tissue external to the joint. Failing in this, strapping was applied to confine the body to the place it occupied in the upper and internal sulcus. On the 22nd a direct incision was made over it, and it was extracted. No untoward symptoms followed, and the man is now well.

REMOVAL OF THE EYE BALL

Case 1.—St. George's: Mr. Pollock.—A woman, aged 51, in good health; but for nineteen years the subject of disease of the eyeball, which had assumed the character of melanosis. Removal of the globe. Recovery. *Case* 2.—The Metropolitan Free: Mr. Borlase Childs.—A boy, aged 14, for six months the subject of a cancerous growth infiltrating the cellular tissue of the orbit. The disease had followed a blow. An enormous fungating mass had protruded from the upper part of the orbit, and the eye had been pushed down and was destroyed. The boy was emaciated and pale to a degree. Excision of the whole and of the entire contents of the orbit was performed. He recovered well, and remarkably regained his health; but, within three weeks of the operation, there were signs of returning disease, and at the present time (four months) the mass is almost as large as at first. The cervical glands being enlarged, no further operation is proposed.

PLASTIC OPERATIONS.

In three cases operations have been performed for the mitigation of deformities consequent on the cicatrices of burns, and in all there is promise of some benefit. In two, hare-lips have been successfully operated on. *Case* 6.—St. George's: Mr. Johnson.—A girl, aged 16. Fissure of the soft, and of part of the hard palate. Staphyloraphy. No union was obtained, and it is proposed shortly to repeat the operation. *Case* 7.—St. George's: Mr. Pollock.—A woman, aged 21. Fissure of the soft palate only. Two operations were performed, and complete union obtained. *Case* 8.—The London: Mr. Luke.—A woman, of middle-age, under care on account of a vesico-vaginal fistula, of considerable size. Its edges were pared, and united by three sutures. Perfect closure followed, but, from the retraction of the urethra, the woman now suffers from incontinence of urine. *Case* 9.—St. George's: Mr. Pollock.—A woman, aged 28, the subject of an incurable vesico-vaginal fistula, for which several operations had been performed without success. It having been determined to attempt to close the vagina below the level of the aperture, and thus allow the upper part of the vagina and the bladder to constitute one closed receptacle, the first step in the procedure has been the dissecting away of a fold of mucous membrane from the vagina. Further operations will be necessary.

OPERATIONS FOR ARTIFICIAL ANUS.

The London: Mr. Luke.—A man, aged 60, who had suffered from constipation of the bowels for eighteen days, and had all the symptoms of malignant stricture of the lower bowel. An oblique incision a little above the left groin having been made, the finger was introduced. During examination a part of the gut, which was distended and much softened, gave way, and fæces escaped. Extensive adhesions prevented any attempt from being made to draw the torn bowel into the wound. Death took place next day, and at the autopsy a cancerous stricture of the sigmoid flexure was found, the cœcum being drawn over and united by old adhesions to the diseased part. The latter bowel was very soft, from long distension, and was the part which had given way in the operation.

Medical Times & Gazette.

SATURDAY, JUNE 21.

THE GOVERNMENT MEDICAL REFORM BILL.

We this day place before our readers the New Medical Reform Bill, as amended by the Select Committee of the House of Commons. This is, no doubt, the last Medical Reform Bill of which we shall hear during the present Session, and if this Bill should break down, we know not how any other can have a chance of success.

It will be seen that the Bill provides for the appointment of a Medical Council, to be chosen by the Crown; the institution of a Preliminary Examination for all those who are entering upon the Study of Medicine; the establishment in each division of the kingdom of a Board of Professional Examiners, to be chosen by the Colleges of Physicians and Surgeons and the Universities, and, for ten years, by the Society of Apothe-

caries of London and the Apothecaries' Hall of Dublin; the Registration of all licensed Practitioners; the power to recover just claims by those who are registered; and the punishment of those who falsely assume any Medical title. Those who pass the Preliminary and the Professional Examination will be entitled Licentiates in Medicine, and will form a class analogous to the General Practitioners under the present conventional arrangements; but those who aspire to the rank of Physicians or Surgeons, must pass the examinations of the respective Colleges of Physicians or Surgeons in England, Scotland, or Ireland.

Such, among a multiplicity of details, are the chief features of the new Medical Reform Bill, which must have cost its framers an infinity of labour in the attempt to reconcile the conflicting interests of the different corporations.

It is but right to state, that already the College of Physicians of London and the College of Surgeons of England intend to oppose the progress of the Bill by every means in their power. Those Colleges conceive that their functions will be annihilated if the Bill becomes law; and that the Practitioners of Medicine, content with passing the Examinations prescribed by the Medical Council, will cease to aspire to the honours conferred by the two Colleges. We do not believe that such is the intention of those who framed the Bill, nor do we ourselves fear any such result. If the abolition of the time-honoured College of Physicians were aimed at by the Bill, or if the magnificent College in Lincoln's-Inn Fields were threatened with extinction, there is no doubt that the whole voice of the Profession would be raised in opposition to the passing of the measure; but we cannot help expressing our belief, that by some modification in the language of the Bill, not only might such an impression be removed, but the Colleges might be made to occupy a still higher ground in the opinion of the Profession than that which they have already attained. We have spoken so distinctly on former occasions upon the necessity of maintaining the rights and privileges and the true dignity of the Colleges, that we need here only repeat our wish and our hope, that whatever changes may be effected in Medical Legislation, those corporations may be regarded with esteem and gratitude for the services they have rendered, and may continue to flourish and to prosper as long as Medical and Surgical science shall be cultivated in the British dominions.

POISONING BY STRYCHNIA.

Now that the chief actor in the Rugeley tragedies has been consigned to his doom, it is perfectly competent for us to offer some observations upon the nature and properties of Strychnia, as a poison, and upon the means of its detection. Until the revelation of the facts at the late investigation, we were not aware that Strychnia had been frequently, or, indeed, ever, known as an agent of intentional poisoning, except in some suicidal cases; and as the murder of Cook has already been the means, as it is alleged, of causing another murder by the same poison, it is of paramount importance to the safety of society that the properties of this fatal agent should be thoroughly understood by the Medical jurist, with a view to the prompt detection and punishment of future crimes. We shall endeavour in the present article to point out briefly the facts which are *known* in relation to the chemical and physiological properties of Strychnia; and also to indicate the points which appear to us to be worthy of further examination.

Strychnia is an organic substance, belonging to the class of alkaloids, crystallizing in prisms, of an intensely bitter taste, and very slightly soluble in water. The tests by which it is distinguished are rather numerous, but very little reliance can be placed upon most of them when the quantity is small or when the poison is mixed with other matters. By far the most distinct and characteristic test is the action of sulphuric acid and bichromate of potash, which together give with strychnia a series of beautiful iridescent colours. Dr. Letheby has also stated that the same effect may be produced by putting a little strychnia with sulphuric acid on a piece of platinum foil, connecting the foil with the positive pole of a galvanic battery, and then touching the acid with the negative pole, which terminates in a piece of platinum wire. The production of colour in both cases, appears due, as Dr. Letheby observes, to the action of nascent oxygen. We may at once state, that when the strychnia is in mass, these tests are very satisfactory, and liable to little fallacy.

The physiological action of strychnia is very characteristic, and is remarkably uniform in all cases. It is generally admitted that it acts as a spinal irritant, although it may, perhaps, be a question whether it does not also act upon the heart. It is certain that it causes violent contractions of the voluntary muscles, but without affecting the consciousness, which remains perfect throughout; and it is supposed to cause death by spasmodic rigidity of the muscles of respiration. The symptoms produced by strychnia very much resemble those caused by tetanus, but it would be a serious mistake to confound tetanus with poisoning by strychnia. Putting traumatic tetanus out of the question, and discarding also the hysterical forms of the disease, and a few cases which may (as in a case lately recorded in this Journal) be dependent upon worms or other excentric causes, we apprehend that there can be little difficulty in distinguishing a case of idiopathic tetanus—which, it must be remembered is a rare disease—from the kind of poisoning to which we now allude. In idiopathic tetanus, the symptoms come on gradually, increase in severity, and last for a considerable period, perhaps for two or three days; whereas, in strychnia poisoning, the symptoms come on suddenly, and terminate in recovery or death in a very short period, perhaps from a quarter of an hour to an hour. We apprehend that there are very few Medical men in their senses, and possessed of a competent knowledge of pathology, who will not readily admit that the symptoms described in Cook's case were entirely consistent with poisoning by strychnia, even if they were not positively pathognomonic of that form of affection.

The above remarks may be said to comprise only the truisms connected with strychnia as a poison; but some questions still remain for discussion, on which the data are not so certain. As we are now about to break new ground, we shall proceed with caution, and rather indicate the path to be followed, than offer, at present, any decided opinions of our own.

In the first place, we may remark that a very considerable difference appears to exist in the minds of competent observers, as to the condition of the strychnia after it has left the stomach. The opinion generally entertained is, that strychnia being an organic poison, undergoes decomposition after absorption from the alimentary canal; but some have recently asserted, that it is as unchangeable as arsenic or antimony, and that, if it has once been swallowed, it may be detected in all the tissues at any period after death. This very startling assertion of course requires confirmation; and, whatever experiments may be made upon the subject, we have a right to demand that the most rigid proof shall be given that they are performed with the most scrupulous care, and with the avoidance of every possible source of fallacy.

We are assured that a single grain of strychnia, taken into the system, may perform its fatal office, may be absorbed into the blood, may be carried by the current of the blood into the whole of the body, and in every part of the frame may be developed as strychnia in the crystalline form. This view, applying to minute quantities, is entirely new, and before we admit it, we are justified in demanding the most unexceptionable evidence

of its truth. The experiments should be made, not by one individual, but by several; not by persons predisposed to find certain evidences of colour or crystallization, but also by persons who are sceptical upon these points; not upon bodies of animals placed under the most favourable circumstances, but upon those which are purposely placed under the most unfavourable conditions; not upon animals which have been made to swallow a definite dose of a known poison, but upon animals which have been made to swallow different doses of different poisons, or *which have swallowed no poison at all;* not upon animals killed immediately after the experiment, but upon those which are permitted to live for some time after the ingestion of the poison, and in which it might have been changed or eliminated.

Again, it is admitted, that of the materials taken into the system, whether nutritive, medicinal, or poisonous, many are eliminated by the urine and the sweat; and yet it is asserted that the poison may be discovered in the tissues many months after its administration. It is also known that many poisons accumulate more in certain organs than in others, and yet it is asserted that they may be detected equally in all parts of the body.

In case of an overdose of strychnia, it would be interesting to ascertain, whether a certain portion only (just enough to cause death) enters into the system while the rest remains unchanged, or whether the whole is absorbed; for if only a minimum quantity, say a grain, were absorbed into the whole human body, (weighing, perhaps, 150lbs.), then, according to the new views, this grain must be equally diffused over about a million and fifty thousand grains. The case is very different where a small animal, say a rabbit, weighing two pounds, is poisoned with two grains of strychnia, for here the poison is present in a most concentrated form, and may readily be found.

We have already expressed our scepticism as to these new views, but we are open to conviction. Like Brutus, "we pause for a reply."

THE WEEK.

At the last interview between Palmer and his Solicitor, Mr. Smith, the former made a request that the body of Cook should be exhumed, and a promise was made that the exhumation should take place. It appears to be forgotten that the body was exhumed on the 25th of January last, when due notice was given to Mr. Smith, who sent two Medical men to be present, and who, it is said, had previously consulted Chemists on the matter. It was then known that strychnia had not been found, and any part, or the whole of Cook's body might have been taken away for analysis by the witnesses for the defence. It is certainly extraordinary that Mr. Smith, with a full knowledge of the nature of the charge, and with a full conviction of Palmer's innocence, which he seems to have shared with Serjeant Shee and one or two others, did not at once, last January, submit Cook's body to the searching analytical investigations of Mr. Herapath and Dr. Letheby. If those Chemists had failed to detect strychnia, it might have tended to strengthen Mr. Smith in his belief of his client's innocence, and might indeed have produced more effect with the jury than the mere theoretical evidence given by those gentlemen without any practical acquaintance with the facts of the case.

The answer elicited by Sir John Trollope's question to Mr. Bouverie upon the subject of Medical Relief to the Poor has not disappointed us, and we are not prepared to censure the Poor-Law Board for its apparent indisposition to assist the Poor-Law Surgeons. Mr. Bouverie stated very truly that one main point had been gained in making the Poor-Law Medical appointments permanent instead of temporary; but he declined to interfere between the Guardians and the Medical Officers on the subject of increasing the salaries, although he alluded to the fact, that an increase amounting to £16,000 or £17,000 had lately been effected. In fact, on this matter, the Medical Profession must help itself: and, although we shall always most cordially advocate the necessity of remunerating the members of our Profession in an adequate manner, yet what can be done by the Press, or the Poor-Law Board, or the House of Commons, when the members of the Profession themselves set down their own services at the lowest possible figure? Let Medical men insist upon a just reward for their services, and there can be no doubt they will succeed in obtaining it.

A most painful excitement has been caused in the Profession, by the prosecution, at the instance of the Commissioners in Lunacy, of Mr. Snape, the respected Medical Superintendent of the male department of the Surrey County Lunatic Asylum, for the alleged murder of a pauper lunatic, by causing him to be placed in a shower bath. It appears that the deceased was a refractory person, and subject to fits of excitement, for which it was deemed occasionally necessary to order the shower bath, and small doses of tartar emetic,—a plan of treatment, in ordinary cases, to which we can see no objection; but which, on the contrary, we believe to be generally advantageous. On a particular occasion, however, the poor man in question was ordered into the shower-bath, and was pumped upon for the space of twenty-eight minutes, and after his removal from the bath, he died. A post-mortem examination was made, and it is said that some disease was discovered about the heart; but upon this point, the evidence is at present very vague. An anonymous letter on the subject was addressed to the Commissioners in Lunacy, and they investigated the matter, and the conclusion at which they arrived was, to send the case for adjudication before a magistrate, as a preliminary step to a criminal trial. We must again express our very great regret that this event has occurred: it is not alleged that Mr. Snape acted from excitement on this or any other occasion; but it is known, on the contrary, that he is a mild, kind, and humane man; and, without any wish to prejudge the case, we must regard it as one of those unfortunate mishaps which will occasionally befal any officer in what he conceives to be the proper execution of his duty.

A very unseemly squabble between two members of our Profession has lately occupied the attention of the Law Courts at Westminster. Mr. Borham brings an action for assault against Mr. Reece, and obtains a verdict, with £5 damages; and Mr. Reece brings an action against Mr. Borham in another Court, and obtains 40s. damages for a libel on his Professional character. The libel complained of was published in the columns of a Medical contemporary, and was answered in the same pages; but the combatants, not satisfied with contending in a literary arena, have resorted to the Law; and we fear that the result will be, as is usual in such cases, that the lawyers will be the only gainers. We very much regret that gentlemen of our Profession should be dragged before the public on account of jealousies and quarrels which ought never to have had any existence, or which might, under the exercise of forbearance and concession, have been arranged by the agency of mutual friends. The money squandered away upon Law might have been much better bestowed upon the Medical Benevolent Fund, or the Medical Benevolent College, or the Widows' and Orphans' Fund, or any other of our Medical charities; and probably, before long, both plaintiff and defendant will be of this opinion.

The late case of suicide of a female at the Agapemone, or "Abode of Love," is only another evidence that the State is not watchful enough over the baneful influences that are exercised upon society by designing men. In the case of the Agapemone, advantage is taken of religious enthusiasm to secure dupes, the weak point of the victim is worked upon, either to obtain present donations, or, a will having been made (as previously known) in favour of the loved abode or its managers, the mind is presented with such hideous views of human nature as to drive the victim to despair on religious topics, and ultimately to produce a confirmed monomania. Suicide comes next, and the realization of a handsome legacy or residuary estate by the Agapemone concludes the scene. It appears that in the instance before us, the "Abode" had already realized to the extent of £1700 out of the means of this lady's sister; and whether anything is to follow upon her death remains to be seen. Suffice it, that in the "Abode of Love," she had been driven to despair and to her own murder; and we are persuaded that a most rigid and searching investigation is needed into the affairs of this Institution, to protect society from fraud and true religion from dishonour.

REVIEWS.

History of Medicine, from its Origin to the Nineteenth Century; with an Appendix, containing a Philosophical and Historical Review of Medicine to the present time. By P. V. Renouard, M.D. Translated from the French by Cornelius G. Comegys, M.D., Professor of the Institutes of Medicine, Miami Medical College. London. 1856. Pp. 720.

The work before us is highly creditable to the Medical Profession in America: for although there is the name of a London publisher on the title-page, the paper, and print, and authorship, are American. It is a work which is greatly needed, if that need is to be estimated by the absence of any similar modern work in our language, and by the fact that some such work ought to form a part of every extended and liberal course of Medical education.

But what, it may be asked, is the use of reviving the memory of obsolete systems? of theories that now are ridiculous, and of modes of practice cumbersome and violent, or superstitious and imbecile?

The reason, courteous reader, is, that no matter how much theory and practice may vary from age to age, human nature is the same; and the most palpable errors and absurdities into which Physicians of every age have been betrayed, have arisen, not so much from the imperfections of an art confessedly imperfect and continually changing, as from certain imperfections inherent in human nature, which exist now in as full force as they have existed always, and which require constantly to be pointed out and counteracted.

Of course, every Physician, now-a-days, professes to hold Theory and Observation each in its proper light. Every experimentalist, or Empiric, (using the word in its ancient and honourable sense,) calls himself a Rational Empiric; and every Theorist persuades himself that his theory rests upon a solid basis of fact, ascertained by observation and experiment. How cruelly facts and experiments are sometimes tortured to accommodate them to various theories, it is not our present object to say. But we do affirm, that we meet daily with instances, and palpable ones too, in which the respective provinces of Reason and of Experiment are most ridiculously transgressed; the absurdity being enhanced by the entire simplicity and *bona fides*, the entire unconsciousness of the blunder on the part of those who commit it.

Let us take the first example that strikes us. Dr. A is discussing the value of certain remedies in uterine diseases; and concludes by saying, that "he is at a perfect loss to comprehend the principle upon which incision of the os uteri can be beneficial in dysmenorrhœa."

Of course Dr. A overlooks the palpable identity of this kind of argument with that which is alleged to have occupied the Royal Society when King Charles the Second (of pious memory) sent them the fish. The question to be determined first is, does incision of the os uteri cure, or does it not? and when the fact is settled, it is quite time to discuss the principle. As it is, Dr. A's statement simply proves that he does not understand a thing. The right answer to which is—so much the worse for Dr. A!

Dr. B tells us too, that he cannot see how sulphuric acid can be a remedy for diarrhœa. Dr. C tells us that *if* sulphuric acid cures diarrhœa, it must be because it acts as a purgative. Dr. D cannot agree in the use of minute doses of calomel in cholera, because it *must* irritate the stomach. Need we, courteous reader, give additional instances of this mode of reasoning, or rather of want of reasoning? of setting aside inquiry into alleged matter of fact, because those alleged facts do not square with some hypothesis which pre-occupies the mind?

On the other hand, there is the less avowed, because less creditable but still common custom, of setting aside all doctrine or theory (in plain English, all the use of the reflective faculties) in favour of a coarse and uneducated experience, or in favour of that kind of instinct, valuable as it is, which is known by the names of tact and general experience.

It is to combat errors such as these, and more particularly errors of the former class, that the great and comprehensive work of Dr. Renouard is devoted. He seeks to restore to observation guided by reflection, and to Therapeutics, the honours of pre-eminence which are now often conceded to theoretical systems based upon an imperfect physiology; and to make cautiously observed matter of fact, the one thing to be aimed at in Medicine.

If we could afford the space, we should be delighted to follow our author in his account of medical practice and theory from the earliest ages; and to relate with him, how Medicine has been seduced, ever and anon, from her correct and dignified path of observation, by the harlotry of prevalent systems of philosophy falsely so called. To the rising generation of Physicians, this book may be like the history of the Choice of Hercules. On the one side, there is the seduction of speculative philosophy, with its short and pleasant road to knowledge; on the other, there is experimental observation, dark, rugged, and laborious. There can be no doubt as to the right path; and whether Physicians take the right or the wrong is a question very momentous to humanity at large.

A Practical Treatise on Stammering: its Pathology, Predisposing, Exciting, and Proximate Causes, and its most successful mode of Cure, Scientifically Explained, with Remarks on the principles which should guide the Practitioner in the Treatment of all purely Nervous Diseases. By J. H. Ayres Poett, M.D. Pp. 50. London. 1856.

The view taken by Dr. Poett of stammering is, that it is caused by an irregular action of the nervous system, and consists "in a convulsive effort of the organs of speech to pronounce a syllable or a word." The best method of cure is to subject the mind of the stammerer to strict discipline, and to teach him to pronounce words in a regular, though monotonous and drawling manner. We have no fault to find with either the theory or practice of Dr. Poett in this respect, though it strikes us that we have heard the same views advanced before; but we must express our regret that he has published his pamphlet in its present form, for it abounds in errors of every kind; his physiology and pathology are far behind the knowledge of the present day, and even his composition and punctuation are generally defective.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

INFLUENCE OF LIGHT ON THE EXHALATION OF CARBONIC ACID.

By Professor MOLESCHOTT.

In this paper Professor Moleschott details several series of interesting experiments he has performed upon the *Rana esculenta*. Our limited space prevents our reproducing his numerous tables, but we may state the chief results. He refers to former papers for an account of the mode he adopts for determining the amount of excreted acid, and the various

precautions that are to be observed while making the experiments.

In the first series, the frogs were chosen as nearly alike as possible, and kept under precisely the same circumstances, except that one-half of them were kept in darkness, and the other half in bright daylight. This light was, however, reflected, for frogs exposed to direct rays of the sun in a confined space suffer from severe inflammation of the skin. From thirty-four experiments, the mean results obtained in twenty-four hours were: 654 milligrammes of acid were excreted for every 100 grammes bodily weight in those which had been exposed to light, while in the others only 522 milligrammes were excreted—a difference of one-quarter.

In rainy weather, or under a cloudy sky, the results were different, for eighteen experiments gave as a mean but 512 milligrammes in those exposed to the light, as compared with 504 in those kept in the dark, the action of the diffused lights found in this description of weather, therefore, exerting no effect in increasing the quantity excreted.

The next object was to measure the intensity of the lights employed, and some photometric paper was prepared by which 20 degrees or shades of colour could be measured. Strips of this were employed in 94 experiments, and the results divided into two series—one (55) in which the degree V. was not passed beyond, and the other (39) ranging from V. to XX. From this it resulted, that the quantity excreted under the lower intensity was 545 as compared to 645 excreted under the higher, or 1 to 1·18, so that nearly a-fifth more was excreted under the influence of the stronger than under that of the feebler light. The difference of temperature was only 1·65 C.

As, in so small a number of instances, individual peculiarities might influence the general results, other experiments were performed showing the effects of exposing the same animals to alternate light and darkness—an hour always intervening to give them the opportunity of recovering themselves. Sixteen frogs that had been kept in the light were now removed into darkness, with the effect of causing them to excrete 543 mill. in place of 592. In 20 others, that had been kept in the dark for periods varying from one to fourteen days, the amount rose, on exposure to light, from 596 to 679; and, in ten others, that had been previously kept in the dark from eight to sixty days, it increased from 447 to 459. The following table shows these results, according to intensity of light:—

Intensity of Light.	Carb. Acid in Light.	In Darkness.	Comparison of Results.
3·5	592	543	1—1·09
5·7	679	596	1—1·14
1·7	447	459	1—0·97

In order to ascertain whether the influence of the light is exerted through the eyes, the surface, or both, the author tried other experiments by comparing frogs previously blinded. The blinding was accomplished by a strong solution of nitrate of silver, and the frogs were kept for 197 days after the operation, in order that they might be in a healthy state for comparison. Fifteen of these blinded frogs, exposed to a light of an average intensity of V.8, furnished 490 mill., as compared with 561 (1 to 1·14), furnished by the unblinded similarly exposed; evidently showing the influence exerted by the eyes. In twenty-six other experiments the blinded frogs were alternately exposed to light and darkness. At a mean intensity of light, VI·15, 542 mill. were given out in the light, and 469 in the dark (or 1, 1·15); showing that the skin also contributes its share in the production of the phenomenon. Finally, the influence of intensity of light was studied in forty-one blinded frogs, as it already had been in the unblinded, and with similar results, viz., 454 mill. being excreted under an intensity of IV·64, and 559 under an intensity of VI.74, *i.e.*, 1 to 1·23.

The general conclusions to be derived from the investigation are—1. That frogs, for the same unities of weight and time, exhale from one-twelfth to one-fourth more carbonic acid, under the influence of light, than when in the dark, the temperature being the same, or but little different. 2. The amount of acid excreted is directly proportionate to the intensity of the light. 3. The influence of the light is exerted in part through the medium of the eyes, and in part through that of the skin.—*Wien. Medic. Wochensch.*, 1855. No. XLIII.

ON DISLOCATION OF THE TENDONS.

By Dr. SEBREGONDI.

Dr. Sebregondi, judging from his own observations, believes this accident to be far more frequent than, judging from the little notice of it taken in the manuals, it is supposed to be, it being, indeed, often confounded with partial or complete dislocation or sprain; and at other times explanatory of the success occasionally obtained by empirics by their manipulation of injured limbs.

The dislocation of the tendon may be either simple or complicated with rupture of the sheath; the consequences in the latter case, especially in diseased subjects, being sometimes very serious. The tendons especially liable to be dislocated are those which run a long course from the muscular belly prior to their attachment, lying, for the most part, in a groove, and either surrounded by a sheath, or protected by the adjoining cellular tissue. To these especially belong the tendon of the long head of the biceps brachii, as also the tendons of the teres major and minor. A case of each of these dislocations is narrated by the author, as also another occurring at the elbow-joint, though this is of much rarer occurrence. The accident is often met with in the vicinity of the wrist-joint, especially at the posterior surface; and is frequently there accompanied by rupture of the sheath, and not unfrequently gives rise to ganglionary formations. The knee-joint is also not unfrequently the seat of these dislocations, the accident not only occurring to the tendon of the sartorius, but also to that of the biceps cruris, in the vicinity of the head of the fibula. The same accident often happens near the ankle-joint, and is frequently mistaken; but ganglionary formation is a far less common result than at the wrist-joint. The author relates an interesting case of dislocation of the tendon of the plantar muscle occurring in a child.—*Berlin Med. Zeit.*, 1855. No. XLV.

CASE OF SUPERFŒTATION.

By Dr. BIGELOW.

Dr. Bigelow relates the following case, the facts of which he is cognizant of:—

Mrs. C., aged 18, healthy, and accustomed to menstruate every fortnight, was married October 9, 1854, after which she had three regular menstrual periods. On the 10th of July, (nine months and one day after marriage,) she gave birth to a full-sized male child. She did not return to her former size, and the lochia continued for a week. The milk was watery and scanty, so that the child had to be fed. She was up in about a week, and continued well until September 22, (seventy-two days after the birth,) when, after a short labour, she gave birth to a female child, about the same size as the other. The lochia continued longer, and the milk was abundant. Both children are thriving, and the mother is quite well.—*New York Journal of Medicine*, Vol. XV., page 440.

GENERAL CORRESPONDENCE.

CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged if you will allow me to state, with respect to the case mentioned by Mr. Witten, and the question he asks in your Journal of to-day, that every patient may inhale the quantity of choloroform he mentions, viz., 8 or 9 drachms, without being rendered unconscious, provided the inhalation be extended over a sufficiently long time. It is the custom to give it so in certain cases of labour, especially during the first stage. On the other hand, I am satisfied, by long and careful observation, that every patient may be rendered insensible by the vapour of one fluid drachm of this agent, provided it be inhaled continuously and without intermission, and be diluted with not more than fifteen hundred cubic inches of air. I have had to give chloroform to a number of patients on whom large quantities of chloroform had previously been used without effect, and I have not found that any of them required to inhale more than other persons of similar bulk and strength.

Whenever I have met with unusual delay in rendering patient insensible, I have been able to trace it to the circumstance, that the vapour did not enter the lungs in sufficien

quantity with the inspired air. When the vapour enters the lungs, a large portion of it is necessarily absorbed into the blood; and being in the blood, it cannot help acting on the brain and nerves, according, as I feel assured, to a regular and definite law. But exhalation goes on in the lungs, as well as absorption; and if the inhalation of the vapour is interrupted only by a few seconds, the patient loses part of the chloroform which had previously been absorbed; moreover, if the vapour be too much diluted with air, there comes a point where the exhalation from the blood in the lungs balances the absorption, and no further effect can be produced though a person should inhale for hours. The true reason why Mr. Witten's patient did not become unconscious is, that the quantity of chloroform present in the circulating fluid never at any moment reached twelve minims, and was probably much below that amount. I am, &c.

Sackville-street, June 14. JOHN SNOW, M.D.

CERTIFICATES OF DEATH.

[To the Editor of the Medical Times and Gazette.]

SIR,—In the report of a paper of mine recently read before the Royal Medical and Chirurgical Society, there is an error—apparently typographical—which I shall feel much obliged if allowed to correct. Instead of the penalty being "fourteen shillings," as there stated, when a certificate of death is not forwarded to the District Registrar within fourteen days, the sum is "*forty shillings;*" whereby it seems the party omitting to perform this onerous duty might become involved in the same consequences as if he had been guilty of a misdemeanour. During a visit I made to Scotland last autumn, several Professional friends complained seriously of this compulsory grievance; and it was even said that instances occurred of Medical attendants being obliged, under this penal clause of the new Registration Act, to report the decease of individuals to whom they had only given casual advice; and respecting whose disease, and its subsequent fatal termination, they retained scarcely any recollection. That proceeding appeared to be not only great injustice, but very harsh legislation; particularly as all persons required to furnish death-certificates receive no remuneration whatever from Government, for the highly valuable information they thus supply. Although Medical Practitioners in England may not be remunerated for the performance of analogous duties, they are not subjected either to pains or penalties, like their brethren in North Britain. Throughout that portion of the empire, the Profession have, therefore, just reason to dissent from this novel procedure, which is altogether indefensible, and ought forthwith to be repealed; it being most unfair treatment towards any body of educated gentlemen. I am, etc.

24, Brook-street, June 16, 1856. JOHN WEBSTER.

DR. CHURCHILL AND THE ADMINISTRATION OF STRYCHNINE.

[To the Editor of the Medical Times and Gazette.]

SIR,—Will you have the goodness to allow me space in your Journal to correct an error which some friends have pointed out in one of my works. At p. 86 of "The Diseases of Women," the dose of strychnine is stated to be "from one-tenth or one-fourth of a grain to a grain, three times a day." Recent revelations were not needed to prove that the latter dose would be a poisonous one, nor can I explain how such a mistake happened. I have always commenced with one-sixteenth of a grain, and have never exceeded one-twelfth or one-tenth of a grain.

However the error may have happened, I feel it a duty to myself to point it out, and to express my regret for it.

I am, etc. F. CHURCHILL.

15, Stephen's-green, Dublin, June 13, 1856.

THE PRACTICE OF MIDWIFERY.

[To the Editor of the Medical Times and Gazette.]

SIR,—Your correspondent of last week, Mr. Thomas Hughes, of Holyhead, censures my practice in a case reported in a late number of your Journal, on the supposition that, at the time the forceps were applied, I knew the child was dead. It was not so. The mother had a strong impression that the child was living. She stated that she had felt it move half an hour before instruments were had recourse to; indeed, her belief in this was so fixed, that, after delivery, I had great difficulty in persuading her that life had been extinct many hours; and I am satisfied she would not have consented to my employing the perforator, even if I had thought myself justified in recommending such a course.

Mr. Hughes tells me I "might have known" the child was dead. Here I cannot agree with him; and in the absence of any one symptom, or combination of symptoms, pointing indisputably to such a conclusion, I think that it would have been reprehensible practice to perforate without previously making an attempt to deliver with the forceps.

I am, etc. HORACE K. DEBENHAM.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, MAY 27, 1856.

MR. CÆSAR HAWKINS, President.

REPORTS OF TWO CASES OF EXTENSIVE ABSORPTION OF THE BONES OF THE HEAD, FOLLOWED, IN ONE OF THEM, BY HERNIA CEREBRI.

By CÆSAR H. HAWKINS, F.R.C.S., etc.,
President of the Society, and Surgeon to St. George's Hospital.

The first case narrated was one of scrofulous caries, in a young man aged 24, in which, quite contrary to the usual chronic character of that disease, most extensive destruction of the bones and soft parts of the head took place in a very brief period. Within the space of ten weeks from the first sensation of pain over the lower part of the right parietal bone, more than half the cranium became affected on both surfaces, in some parts the bone being entirely absorbed, having large openings. The entire parietal bone, the right half of the occipital, the squamous and mastoid portions of the temporal bone, and a considerable part of the frontal, with a part of the greater wing of the sphenoid, were thus affected in the short period mentioned. The second case related was that of a man, aged 36, who was admitted into St. George's Hospital, under the late Mr. Keate, Feb. 2nd, 1832, with a pulsating tumour, nearly five inches in diameter, on the upper and posterior part of the right side of the head. It was soft and elastic, with a well-defined boundary; in its centre a round fungus projected, through an opening in the scalp, of the size of a small walnut, in which pulsation was also evident, and the apex of it looked like layers of coagulated blood. On the opposite side of the head was a similar depression, about three inches in circumference, which was soft and elastic, and pulsated strongly, the edges of the bone not being abrupt or well-marked round the aperture; and pulsation could also be felt in another smaller depression near this large one. He had lived freely, had been in tropical climates, had been twice salivated for syphilis, had a tendency to rheumatism, but otherwise enjoyed good health. Two years and a-half before his admission, after sleeping on the grass in the sun, he suddenly felt acute pain in the head, which continued some days, and was followed after some time by a depression in the situation of the present tumour, of sufficient size to admit the end of the little finger. This depression increased in size during the next six months, and at length the tumour took its place. Eighteen months before his admission pulsation was first observed in the tumour; at that period the pain and general symptoms were so severe as to lay him up. Poultices were applied, and the tumour was punctured with a lancet, the effect being to let out a little blood simply. The puncture healed, and a month afterwards the same thing was repeated with the like result. Eight weeks previous to his admission, some severe head symptoms occurred, and, after being bled from the arm, and having leeches applied to the tumour, it was again punctured, and from that time the present fungus began to protrude. On his admission, some difference of opinion existed as to the seat and nature of the tumour; it

was twice ligatured. On the twenty-fifth day after his admission numbness of the extremities and dimness of sight came on, with giddiness and sickness; on the thirty-third day the left side was more or less paralysed; on the thirty-ninth, completely so, and the sphincters were relaxed; on the forty-third he was comatose, and died on the forty-seventh. Examination after death showed the anterior part of the calvarium to be much thickened, in some places to the extent of half an inch, the bony tissue being firm and dense, like ivory, the diploe being obliterated; while towards the posterior parts of the head the bones were very thin and presented large apertures, where, during life, pulsation could be readily felt. The external surface of these bones was rough and mammillated, and the internal more porous than natural. The dura mater adhered completely to the integuments around the opening in the scalp, and the arachnoid and pia-mater were also adherent to the inner surface of the former. An opening conducted from the centre of the fungus into a large abscess in the right hemisphere, almost as deep as the lateral ventricle; this abscess had discharged itself during life. It was evident that the disease commenced in the bone, and not in the brain, from the fact that the depressions preceded the protrusion, from the extensive disease of the bones in other parts, and from the fact that below the smaller apertures in which the pulsation of the brain was seen without protrusion, the dura mater and the brain were quite unchanged. The narration of the cases was accompanied with many valuable practical comments upon the rarity of these two affections, their modes of production, and, in the latter case especially, the probable nature of the exciting constitutional cause. The communication was illustrated by many pathological preparations of the parts involved.

THE PATHOLOGICAL SOCIETY.

Tuesday, May 6, 1856.

Mr. Arnott, President, in the Chair.

Dr. Van der Byl exhibited a specimen of

ENORMOUS CANCEROUS GROWTH FROM THE KIDNEY.

This enormous growth of the kidney occurred in a boy, eight years of age, who was admitted into the Middlesex Hospital about twelve months ago. The history is briefly as follows:—The child's abdomen, soon after birth, became larger on the left side than on the right. It continued to increase in size very gradually until six months before his admission into the Hospital, but it grew very rapidly afterwards. When he was admitted the abdomen was much enlarged, and crossed by large tortuous veins; the enlargement existed especially on the left side, and was produced by a tumour about eight inches in diameter. The tumour was slightly movable, semi-elastic in some parts, and not painful on being handled. The intestines were felt over the edge of it on the right side. Four months after admission he walked a short distance, but had to be carried back to bed. He occasionally complained of great pain in the abdomen. The abdomen gradually increased so much in size that he was soon unable to leave his bed, but he lingered on for months. His appetite was generally good, and bowels regular, but he became gradually very thin, and died from exhaustion about ten months after admission.

Post-mortem.—On opening the abdomen the parietes were found to adhere to the enormous tumour which filled this cavity. The adhesions were firm, and extended over the greater part of the tumour; the abdominal viscera were much displaced; the liver, spleen, stomach, and greater portion of the intestines were pushed upwards into the thorax, the lower ribs on both sides being much raised and expanded. The sigmoid flexure of the colon crossed in front of the tumour, and was adherent to it, but there was no obstruction to the passage of fæcal matter. The anterior aspect of the tumour was found to consist of the concave portion of the right kidney, which was enormously enlarged; the pelvis of the kidney was directed forwards and outwards, and measured seven inches in length and five inches in breadth; but, although so much enlarged, was not much altered in appearance. The ureter was of the natural size, and yielded some clear urine when pressure was made over the distended pelvis. A soft mass, the size of an egg, protruded from the lower part of the pelvis of the kidney, but the renal tissue surrounding the pelvis appeared tolerably sound, and in a vertical direction measured twelve inches. Beyond the limits of the healthy renal tissue, the kidney substance seemed converted into a thick fibrous layer, which quite surrounded the growth. The entire growth, when removed, weighed thirty-one pounds, and measured thirty-two inches in circumference transversely, and thirty-six inches in circumference vertically. It was closely covered by peritonæum, and on the anterior and upper part of the tumour were several flattened masses of somewhat rounded outline, but these were easily separated from the main growth, and were probably only enlarged glands. On section, about eight pints of a dark, grumous, viscid fluid escaped, containing numerous yellowish, shreddy, sloughing masses. About one-third of the tumour being removed by a vertical cut, made so as to leave the pelvis of the kidney entire, the cut surface presented anteriorly, near the pelvis, a margin of renal tissue, about one-third of an inch thick, and this could be traced all round the tumour, but gradually became converted into a fibrous layer, the true kidney tissue having quite disappeared four or five inches away from the renal pelvis. The interior of the tumour presented a soft, gelatinous, medullary substance, of a yellowish colour, with some patches of semi-transparent material (but not colloid), and it was traversed by fibrous bands; some portions were hanging in shreds and sloughs in all directions, but the breaking up seemed furthest advanced at the part most distant from the pelvis, where it had indeed reached the distended fibrous layer, which bounded the growth. At the upper part of the tumour is a protuberance apparently in the early stage, which presented a semi-transparent, somewhat gelatinous, pale yellowish, medullary appearance, and is evidently of recent origin. The right kidney weighed seven ounces, but exhibited no trace of the disease. The other organs, viz., brain, heart, lungs, liver, etc., were free from the disease and tolerably healthy. The microscopic examination of the diseased kidney confirmed our opinions as to the cancerous nature of the growth. The juice taken from the protuberance at the upper part of the tumour exhibited large cells with several nuclei and nucleoli, caudate and spindle-shaped cells, with granular corpuscles and molecular matter.

The Secretary read a report by Dr. Bristowe, on a specimen exhibited at a former meeting by Mr. Hutchinson, for Mr. Borlase Childs, of

TUMOUR FROM THE ORBIT.

Dr. Bristowe had discovered in it—1. Fusiform cells, with single nuclei; 2. Much fibroid tissue; 3. Numerous free granular nuclei; 4. Much free granular and fatty matter. He had not been able to find any large cells, or cells containing more than one nucleus. Although the tumour differed from scirrhus in being not nearly so hard, from encephaloid in being tough, and from both in being comparatively non-succulent, yet he was inclined to believe it of a malignant nature. He had not seen any innocent tumour in which the number of free nuclei was so great, or coincided in arrangement with those in the specimen. The absence of the large compound cell he did not deem of any importance in the decision, since many true cancers did not contain them.

Mr. Hutchinson observed that Dr. Bristowe's report coincided in every particular with that which he had first given. Their observations had come to the same facts, but their reasoning upon them had differed. The case was, in many respects, a very peculiar one; but, from its subsequent progress, there could be no doubt but that Dr. Bristowe's conclusion, as to the nature of the tumour was the correct one. It had already re-appeared in the orbit, and was also developing itself in the glands of the neck.

The President observed, respecting the interesting question as to whether any cells could be deemed characteristic of cancer, that he was surprised to hear the caudate cell mentioned as such. He had supposed that the caudate form had long been deemed valueless as a distinctive mark. In some extensive observations which, in connexion with this matter, he had formerly made, together with Mr. Tomes, they had found the most common cell in cancers a very large granular one.

Dr. Brinton believed that it was quite the exception to find peculiar cells in cancer. The malignant nature of a tumour must be judged by its general characters and its history,

and not by the size or form of its component cells. These might be very various.

Dr. Quain said, that our observations were tending to show that there was no definite microscopic character of cancer. The microscope revealed clearly enough the structures of these growths, but it often failed to reveal the reproductive power which they might or did possess. We saw in these tumours cells of every type and form; many of these cells resembling cells entering into the formation of healthy structures and tissues. For example: cartilage cells, epithelial cells, white corpuscles from the blood, etc.; and we saw cells very similar in outward character obtained from tumours very different in their history. The only facts which we yet seemed to possess were, that tumours yielding juice, abounding in cells which varied much in form and size, and which contained several nuclei and nucleoli, were of a malignant character, that is to say, likely to be reproduced locally or in distant organs.

Mr. Henry agreed in opinion with the preceding speakers, He believed the term "cancer cell" a vague and worse than useless one. A cancer must be judged by the relative proportion of its fibrous, and cellular, or nuclear elements, rather than by any peculiarity in the form of the cell. In England, the cancer cell was a large one, with more than one nucleus; while many authorities on the Continent described it as a small cell, not larger than those of ordinary lymph.

Mr. Henry Thompson showed a specimen of

FIBROUS TUMOUR OF THE PROSTATE

in a man aged 60; the prostate gland was enlarged, especially the median portion, weighing 7¼ drachms, or about double the natural size. The enlargement was chiefly due to small tumours, imbedded in the substance of the gland, each isolated from the surrounding part by a proper capsule. Sections, three in number, made with a Valentin's knife, were exhibited under a power of 250 diameters, from which it appeared that the tumours were not merely fibrous in structure, but contained glandular structure, ducts, and nuclei. But, besides these, were shown also, intermingled with the tissues of the tumour, those well-known bodies, usually called "concretions," so commonly seen in the adult prostate gland; from which it appeared that the tumours, in all respects, resembled the peculiar structure of the gland in which they were imbedded.

Mr. Thompson also showed preparations of

PARASITIC FUNGI.

The first was from a case of favus, which was peculiar only in that it affected the body of a child, and did not exist on the scalp. Under the microscope, it showed the ordinary characters. The second consisted in hairs from true ringworm, or tinea tondens. Not only did abundant sporules exist, but there were also filaments of considerable length, and in tolerable plenty. The rarity of the occurrence of the latter in true ringworm was admitted by all dermatologists.

Mr. Henry Gray showed a preparation in which

UNION OF A FRACTURE OF THE OCCIPITAL BONE

had taken place. The patient, a man, had died in St. George's Hospital, of cancer of the stomach. In the usual routine his head was examined at the autopsy, and, quite unexpectedly, there was found to be the line of an old fracture extending across the occipital, not far above the foramen magnum, and reaching, on the left side, the petrous portion of the temporal bone. The fracture was united in part by bone and in part by fibrous tissue. Whether it had not extended across the petrous extremity of the temporal it was impossible to say. The condyles of the atlas were anchylosed to those of the occipital bone. On inquiry it was ascertained, that the man had, two years before death, sustained an injury to his head in a fall from a horse. He received at the time a severe scalp wound, and was delirious for several days after, but ultimately quite recovered. Mr. Gray remarked on the interest of the specimen, and stated, that Mr. Hewett had informed him that he knew of the existence of but six or seven which illustrated a like condition. From the anchylosis of the vertebra to the cranium he would infer that considerable inflammation about the base of the skull had followed the accident.

Mr. Gray also showed a specimen of

STRICTURE OF THE URETER.

It was a preparation presented by Sir B. Brodie to the St. George's Museum. The man had died of other disease, and had complained of no renal symptoms. A stricture of the ureter was found after death, and the kidney, very greatly enlarged, was converted, by dilation of its chambers, into a series of thin walled sacs.

Mr. Hutchinson had seen several cases of stricture of the ureter induced by the impaction of a calculus, and wished to know if there was any history to make it probable that such had been the cause in the present one.

Mr. Gray replied that there was none.

Dr. Brinton showed a specimen of

IMPACTED OMENTAL HERNIA.

It had been taken from the body of a woman, aged 23, who had died one month after her admission into the Royal Free Hospital. She had been admitted on account of an irreducible inguinal hernia, but it had seemed that the symptoms were more those of general cachexia, than referable to the rupture. There was no impediment to the action of the intestine, and the operation was accordingly not performed. Obscure pulmonary symptoms presented themselves, and of these she at length died. The autopsy showed a mass of much-altered omentum, occupying the hernial sac, and closely adherent. In the lungs were numerous scattered masses, the nature of which was doubtful. Neither the microscope nor the naked eye could decide whether they were tubercle or cancer, but, on the whole, Dr. Brinton inclined to think them the latter.

Mr. William Adams showed specimens of

NECROSIS OF THE FEMUR AND RADIUS.

The peculiarity of the specimens consisted in the circumstance, that in both the disease affected the articular extremities of the bones. In the former the condition was symmetrical, a portion in each condyle, about the size of half a walnut, being dead and in course of separation. Both were graveyard specimens, and consequently without history.

Mr. Flower exhibited a preparation of

FIBRINOUS OBSTRUCTION OF THE ILIAC AND FEMORAL ARTERIES.

The patient, a woman, aged 39, two months advanced in pregnancy, had been admitted into the Middlesex Hospital, under Mr. De Morgan, on account of numbness of the left leg and foot. Three weeks before she had had pain and numbness in both, but two weeks later the left became much worse. The whole limb, as high as the knee, was swollen, livid, and covered with vesications. No pulsation could be detected in the femoral artery. The gangrene rapidly extended, and death took place two days after admission. At the autopsy, the left common iliac and all its branches were found plugged by a firm fibrinous coagulum, which projected at the commencement of the vessel into the aorta. There was no redness or sign of inflammation of the coats of the affected arteries, and the coagula did not adhere to them. In the left ventricle of the heart were several firm coagula, about the size of hazel nuts, quite loose, and exactly resembling in structure that found in the arteries.

A vote of thanks to the exhibitors for the evening having been passed, the meeting adjourned.

EPIDEMIOLOGICAL SOCIETY.

Monday, June 2, 1856.

Dr. Milroy in the Chair.

Dr. McWilliam read a paper, entitled

SUGGESTIONS FOR OBSERVATIONS ON THE NATURAL INFLUENCE OF CHOLERA, ON THE LOWER ANIMALS.

By W. LANDER LINDSAY, M.D., Perth.

Dr. Lindsay considers, that for the successful prosecution of the study of cholera as affecting the lower animals as well as man, two classes of observers are necessary; for it seldom happens, nay it is scarcely probable, that the same mind is equally fitted on the one hand accurately to observe and labo-

riously accumulate facts, and, on the other, to sift, arrange, and reason upon these, so as to deduce general principles. No; he who gathers in the harvest of facts into the storehouses of knowledge, is the type of one class of naturalists—the careful, plodding, unostentatious observer; he may be said to be actuated by a spirit of acquisitiveness; while he who subjects the grain thus accumulated to the machinery of mental and scientific analysis, who separates the wheat from the chaff, who, from a chaos of apparently unconnected data, evolves harmonious laws, and exhibits their natural relations and significations, is the type of an opposite class, whose labours are guided by the spirit of inductive philosophy. Dr. Lindsay said, that from observations and experiments made in various parts of Central Europe, and, to a less extent, in India and Britain, it would appear, that coincident in date with cholera epidemics in man, there have frequently appeared cholera epizootics among the inferior animals, especially among the domesticated animals; that this cholera in animals resembles that of man, in its symptomatology and pathology; and that it is communicable not only between different individuals, but between different species and genera, and also to and from man. The faculty of Medicine at Vienna reported after the cholera epidemy of 1832, that while in Lower Austria, Gallicia, Moravia, and Bohemia, no animals were exempt from the influence of that epidemic, the disease most closely resembled the human cholera in animals having similar structure and habits to man, such as the dog. The chief animals in which cholera has been noted to have occurred in Europe are horses, cattle, dogs, cats, and poultry—or, in other words, the domesticated animals—while in India and other foreign countries, in addition, racoons, camels, zebras, and monkeys have been mentioned. Some facts that have been recorded would lead to the inference, that the cholera poison is deleterious to plants, as well as to the lower animals and to man; but the whole subject is one that still remains open to rigorous investigation, including minute chemical, histological, and microscopical examination. Dr. Lindsay concludes by propounding a very elaborate system of investigation, by Veterinary Surgeons, grooms, horse-breakers, poultry-men, and others, as well as by the Medical Profession; and, from the mass of facts accumulated by numbers of observers, it may be hoped such general principles may be established as shall throw some light upon the nature of this mysterious scourge.

Dr. Snow thought there was no ground for believing that the cholera attacked the lower animals and plants. The grape disease was caused by a certain fungus, and the diseases of wheat arose from insects having no connexion with cholera. The nature of the potato disease was unknown. The disease was not recognized till 1846, sixteen years after the first epidemic of cholera, two years after the second, and seven years before the third. The author stated, that cholera epidemics were coincident with a heavy and moist state of the atmosphere; but in the autumn of 1849, and also in 1854, when there was the greatest mortality, the air was drier than usual. He (Dr. Snow) was disappointed that the author had not adduced more facts. His impression was, that there was no fatal disease prevalent among animals cotemporaneously with cholera epidemics.

Dr. Weber said, that in 1849 he mixed the contents of the intestines of a cholera patient with some food which he gave to five dogs and six cats. One of the dogs only (about five days old) died; and there were no symptoms referable to cholera.

Dr. Greenhow agreed with Dr. Snow in thinking that cholera did not affect the lower animals.

Dr. McWilliam observed, that Dr. Lindsay's excellent paper was suggestive, rather than didactic, to labourers in this interesting field of investigation. The cleverest account he had seen of a cholera epizooty being coincident with a cholera epidemic in man, was that recorded by the Faculty of Medicine at Vienna, which had been alluded to by Dr. Lindsay. It had been said that the lower animals became affected when other epidemics were prevailing among men. For instance, it was asserted that because horses, donkeys, and goats, died in great number in the Cape de Verds, during the prevalence of yellow fever at Boa Vista, there was some connexion between the epizooty and the epidemy. This, however, was not the case; for the mortality among the lower animals was very clearly attributable to exhaustion from want of food, consequent upon the drying up of the grass at the end of the dry season, and also, in some degree, to overfeeding in this state of exhaustion, when vegetation sprang up with the return of the rainy season, occurrences usual every year in this arid region. Great distress prevails at this moment in the Cape de Verds from famine; and for the last two years the loss of cattle has been high, beyond all precedent. Dr. McWilliam added, that there had been no chance of invoking yellow fever to explain these late epizootics, for, since 1846, no such disease had prevailed at Boa Vista, or any other of the Cape de Verd Islands; and that it was a circumstance worthy of note, that no "Eclair" had visited any island of the group since that time.

Dr. Webster and Dr. Chowne considered that, had cholera existed among animals, the fact could not have been overlooked by the numerous observers who had given the subject their attention, but would have been long since clearly established.

The Chairman said, that his own experience had led him to the same conclusion. He had made special inquiries on the subject in Jamaica, and could not ascertain that the lower animals had been affected by the cholera epidemic, though they had been greatly affected by the epidemic of influenza.

The Society then adjourned.

A BILL

[AS AMENDED BY THE SELECT COMMITTEE]

TO ALTER AND AMEND THE LAWS REGULATING THE MEDICAL PROFESSION.

WHEREAS it is expedient to amend the laws relating to the Medical Profession: be it therefore enacted by the Queen's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

I. This Act may for all purposes be cited as "The Medical Act, 1856."

II. From and after the passing of this Act the several Acts and parts of Acts set forth in the Schedule (A.), to the extent to which such Acts or parts of Acts are by such Schedule expressed to be repealed, shall be repealed, except as to the recovery and application of any penalty for any offence which shall have been committed before the passing of this Act.

III. A Council shall be established, which shall be styled "The Council of Medical Education of the United Kingdom," and shall consist of the President for the time being of the General Board of Health, and such twelve other persons as Her Majesty, with the advice of her Privy Council, may appoint, of whom not less than nine shall be appointed from among persons qualified to be registered under this Act, not less than two of them being persons so qualified who are resident in Scotland, and not less than two of them being persons so qualified who are resident in Ireland.

Of the persons to be appointed by Her Majesty, three shall be so appointed for a term of four years, three for a term of five years, three for a term of six years, and the remaining three for a term of seven years.

The said Council of Medical Education is herein-after referred to as "The Council."

IV. Upon every vacancy among the members of the Council appointed by Her Majesty under this Act, Her Majesty may, with the advice of her Privy Council, appoint a person to fill such vacancy.

Any person going out of office may be re-appointed.

Every appointment on any such vacancy shall be so made as to keep up the whole number of members of the Council qualified as aforesaid to not less than nine, and the number of such qualified members resident in Scotland and Ireland respectively to not less than two.

Every member appointed by Her Majesty to fill a vacancy occasioned by the expiration of the term of office shall be appointed for the term of four years, and every member appointed to supply the place of a member whose office has become void otherwise than by the expiration of his term of office shall be appointed for the remainder of the term of office of such last-mentioned member.

The Council may act notwithstanding vacancies therein.

V. The Council shall hold meetings from time to time, at such place and time as the President of the General Board of

Health shall appoint, and all powers and duties vested in the Council may be exercised and performed at any such meeting at which not less than five members are present.

VI. The said President shall be the Chairman, and shall from time to time nominate one or other of the members to be the Vice-Chairman of the Council, who act as Chairman in the absence of such President; provided, that at any meeting of the Council at which neither the Chairman nor the Vice-Chairman is present, the members present shall elect out of their number a Chairman for the occasion.

VII. At every meeting of the Council all questions shall be determined by the majority of votes of members present and voting thereon, and in case of an equality of votes the Chairman shall have a second or casting-vote.

VIII. There shall be paid to the members of the Council, except the President of the General Board of Health, such remuneration and such reasonable travelling expenses as shall from time to time be appointed or allowed by the Commissioners of Her Majesty's Treasury, out of any moneys which may from time to time be provided by Parliament for that purpose.

IX. The Council shall have power to appoint Committees of their own body of such number, not less than three, as they may think fit, and to delegate to such Committee, either generally or in relation to any specified part of the United Kingdom, such of the powers and duties vested in the Council as the Council may see fit, other than the powers to make general rules or regulations as to the course of study or examination; and any two of the members of any such Committee shall be competent to exercise and perform the powers and duties delegated to such Committee.

X. The members of the Council resident in Scotland shall be appointed members of every such Committee appointed for or in relation to Scotland, and the members of such Council resident in Ireland shall be appointed members of every such Committee appointed for or in relation to Ireland.

XI. For the examination of persons desirous of entering the Medical Profession after the 1st day of December, 1856, there shall be established in England, Scotland, and Ireland respectively, two Boards of Examiners, hereinafter called respectively the "Preliminary Board" and the "Professional Board."

The Preliminary Board shall be established for the preliminary examination in general education, and shall consist of such persons as the Council may from time to time appoint, and the examiners so appointed shall hold office during the pleasure of the Council, and receive such remuneration as the Council shall direct; and no person other than a Graduate in Arts of some University of the United Kingdom, or of some foreign University approved by the Council, shall be entitled to present himself for examination before the Professional Board, unless he shall have received from the Preliminary Board a certificate of approval in such form as the Council may direct, for which certificate the person receiving it shall pay such fee as the Council shall appoint, not exceeding £5.

The Professional Board shall be established for the examination in professional education, and shall consist of Examiners appointed as hereinafter mentioned; that is to say,

The Board for England of Examiners to be appointed by the College of Physicians of London and by the College of Surgeons of England, and until the year 1865 by the Society of Apothecaries of London respectively; and of Examiners to be appointed by the Universities of Oxford, Cambridge, and London respectively.

The Board for Scotland of Examiners to be appointed by the College of Physicians of Edinburgh, by the College of Surgeons of Edinburgh, and by the Faculty of Physicians and Surgeons of Glasgow respectively; and of Examiners to be appointed by the Universities of Edinburgh and Glasgow respectively, and by the two Universities of Aberdeen conjointly.

The Board for Ireland of Examiners to be appointed by the College of Physicians of Ireland, by the College of Surgeons of Ireland, and until the year 1865 by the Governor and Company of the Apothecaries' Hall of Dublin respectively; and of Examiners to be appointed by the University of Dublin and by the Queen's University respectively.

Any person who shall have passed the examination of the Professional Board to the satisfaction of the Council shall be entitled to a certificate of his qualification to practise in such form as the Council may direct, for which certificate the person receiving it shall pay such fee as the Council shall from time to time appoint, not exceeding £25; and all moneys so received by any of the said Boards under the provisions of this Section shall be paid to the Treasurer of the Council.

XII. The Council shall determine the total number of Examiners to constitute the Professional Board for each part of the United Kingdom, and may from time to time alter any such total number, and shall determine and may from time to time alter the proportions in which the several appointing bodies in the last Section preceding mentioned shall appoint the Examiners constituting any such Board, and the branches of science and practice for which such several bodies shall appoint.

XIII. The Council shall make from time to time such rules as they think fit, as to the age and times at which candidates shall be admissible to the respective examinations under this Act, and as to the subjects or branches of education, science, or practice in relation to which such examinations shall be had, and as to the degrees of proficiency, and the certificates of character which they shall be required to produce, which candidates shall be required to have attained in order to be entitled to certificates from the respective Boards of Examiners, and as to the course of study which candidates shall be required to have pursued previous to admission to the professional examination, and as to the time, place, and manner of holding such respective examinations, and as to such other matters as are placed under the direction of the Council by this Act; and all rules to be made by the Council under this Act shall be laid before both Houses of Parliament within one month after the making thereof, if Parliament be sitting, or if Parliament be not sitting, then within one month after the next meeting of Parliament.

XIV. The several Examiners shall be appointed in each year, at such time as the Council shall direct, casual vacancies shall be filled up by the bodies having the right of appointment with all convenient speed after the happening thereof, and every Examiner, whether appointed at the yearly appointment or to supply a casual vacancy, shall go out of office at the next yearly time of appointment, but may be re-appointed: Provided always, that if at any time any of the above-mentioned bodies decline to appoint Examiners, or fail to make such appointment as aforesaid, within a period of one month from the time at which they are directed to make it, or from the time at which any such casual vacancy shall occur, the Council may appoint Examiners, instead of those so omitted to be appointed, and the Examiners so appointed by the Council shall receive such remuneration as the Council shall direct.

XV. The bodies having right of appointment shall furnish to the Council, within a week of the appointment of Examiners, a list of the Examiners so appointed, and no appointment of an Examiner shall be valid unless it be so notified to the Council.

XVI. The members of the Council, and any person deputed by the Council, and any one registered under this Act, shall have free access to all examinations conducted by the Professional Boards.

XVII. It shall be lawful for Her Majesty to grant to the Corporation of the Royal College of Physicians of London a new charter, and thereby to give to such Corporation the name of "The Royal College of Physicians of England," and to make such alterations in the constitution of the said Corporation as to Her Majesty may seem expedient; and it shall be lawful for the said Corporation to accept such charter under their common seal, and such acceptance shall operate as a surrender of all charters heretofore granted to the said Corporation, except the charter granted by King Henry the Eighth, and shall also operate as a surrender of such charter and as a repeal of the Act of the Session holden in the fourteenth and fifteenth years of King Henry the Eighth, Chapter Five, confirming the same so far as such charter and Act respectively may be inconsistent with such new charter.

XVIII. It shall be lawful for Her Majesty to grant to the respective Corporations of the Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh new charters, and thereby to give to the said College of Physicians the name of "The Royal College of Physicians of Scotland," and to the said College of Surgeons the name of "The Royal College of Surgeons of Scotland," and to make such alterations in the constitution of the said Corporations as to Her Majesty may seem expedient, such new charters to

eonstitute or provide for constituting every member of the Corporation of the Faculty of Physicians and Surgeons of Glasgow a member either of such College of Physicians of Scotland or of such College of Surgeons of Scotland, with the same rights, privileges, and advantages as shall be given to members of the said College of Physieians and Surgeons of Edinburgh respectively; and it shall be lawful for the said Colleges and Faculty respectively, under their respective common seals, to accept such new eharters, and sueh acceptance shall operate as a surrender of all charters heretofore granted to the said several Corporations, and thenceforth the Examiners who would have been appointed from time to time under this Act by the Faculty of Physicians and Surgeons of Glasgow shall be appointed in equal proportions by the said College of Physicians of Scotland and College of Surgeons of Scotland.

XIX. Provided always, that nothing herein contained shall extend to authorize Her Majesty to create any restriction in the practice of Physie or Surgery, or to grant to any of the said Corporations any powers or privileges eontrary to the eommon law of the land, or to the provisions of this Act, and that no such new charter shall in any wise prejudice, affect, or annul any of the existing statutes or byelaws of the Corporations, to which the same shall be granted further than shall be necessary for giving full effect to the alterations which shall be intended to be affected by such new charters, and by this Act to the constitution of such Corporation.

XX. The President of the Board of Health shall from time to time appoint from among persons qualified to be registered under this Act, a Medical Registrar for the United Kingdom, and one Assistant Medical Registrar for Scotland, and one Assistant Medical Registrar for Ireland, and also shall appoint a Treasurer, and such clerks and other officers as the said President of the Board of Health may deem necessary, and may from time to time remove any Registrar or other person so appointed; and the salaries of the said Registrar, Assistant Registrars, clerks, and other officers shall be fixed from time to time by the said President of the Board of Health, with the approval of the Commissioners of her Majesty's Treasury, and shall be paid, together with all reasonable expenses incurred by the Medical Registrar in the execution of his duties under this Act, out of any moneys which may from time to time be provided by Parliament for that purpose.

XXI. The said Registrar shall keep a general register of Medical Practitioners, in which shall be entered the name and place of residence and date of registration of every registered person, and the qualification or qualifications in respect whereof he is registered; the name and situation of the body, University, or College, from which the qualification its derived; and such other particulars in relation to such qualification or qualifications as the Council by their rules shall from time to time direct; and upon notice being given by any registered person of any change in his name and designation or place of residence, the said Registrar shall amend the register accordingly.

XXII. Every person who before the 1st day of December 1856 is possessed of any one or more of the qualifications described in the Schedule (B.) shall be entitled to be registered according to his qualification or qualifications, on producing, before the 1st day of January, 1857, to the Medical Registrar, or to the Assistant Medical Registrars in Scotland or Ireland, the document conferring or evidencing the qualification or each of the qualifications in respect whereof he seeks to be so registered; or if he be a person who was actually practising Medicine in England and Wales prior to the 1st day of August 1815, on signing a declaration according to the form in Schedule (C.), or upon transmitting, before the said 1st day of January 1857, by post, to the Medical Registrar or one of such Assistant Medical Registrars information of his name and address, and of the qualification or qualifications, including such declaration as aforesaid, in respect whereof he seeks to be registered, and of the time or times at which the same was or were respectively obtained: provided always, that it shall be lawful for the several Colleges and other bodies mentioned in the said Shedule (B.) to transmit to the said Registrar before the said 1st day of January 1857 lists certified under their respective seals of the several persons who, in respect of qualifications granted by such Colleges and bodies respectively before the said 1st day of December 1856, are entitled to be registered under this Act, stating the respective qualifications and places of residence of such persons; and it shall be lawful for the Registrar thereupon to enter on the register the persons mentioned in such lists, with their qualifications and places of residence as therein stated, without other application in relation thereto; provided also, that any person possessed before the said 1st day of December 1856 of any such qualification as aforesaid, who does not make application as aforesaid to be registered before the 1st day of January 1857, and who has not been included in any list transmitted as aforesaid, shall upon such production or transmission by him as hereinbefore mentioned be entitled, upon payment of a sum of £2, to be registered according to his qualification or qualifications.

XXIII. Where any person entitled to be registered under this Act applies to either of the Assistant Medical Registrars for that purpose, such Assistant Registrar shall forthwith enter in a local register to be kept by him for that purpose, the like particulars in relation to such persons as are hereinbefore required to be entered in the General Register, and shall with all eonvenient speed send to the Medical Registrar a copy, certified under the hand of such Assistant Registrar, of the entry so made, and the Medical Registrar shall forthwith eause the same to be entered in the General Register; and the entry on the General Register shall bear date from the Local Register.

XXIV. No qualification shall be entered on the register, either on the 1st Registration or by way of addition to a registered name, unless the Medical Registrar or the Assistant Medical Registrar, as the case may be, be satisfied by the proper evidence that the person claiming is entitled to it; and any appeal from the decision of the Registrar or Assistant Registrar may be decided by the Council, or by the several Committees of the Council appointed to act for this purpose in England, Scotland, and Ireland respectively; and any entry which shall be proved to the satisfaction of such Council or Committees of the Council to have been fraudulently or incorrectly made, may be erased from the Register by order, in writing, of such Council or Committees of the Council.

XXV. The Registrar shall in every year cause to be printed, published, and sold, under the direction of the Council, a correct Register, in alphabetical order according to the surnames in the Form in Schedule (D.), of the names, places of residence, and other particulars hereinbefore required of all persons appearing on the General Register as existing on the 1st day of January in every year; and such register shall be called the "Medical Register;" and a copy of the Medical Register for the time being, purporting to be so printed and published as aforesaid, shall be evidence in all Courts, and before all Justices of the Peace, and others, that the persons therein specified are registered according to the provisions of this Act; and the absence of the name of any person from such copy shall be evidence, until the contrary be made to appear, that such person is not registered according to the provisions of this Act: Provided always, that in the case of any person whose name does not appear in such copy, a certified copy under the hand of the Medical or Assistant Medical Registrar of the entry of the name of such person on the General or Local Register shall be evidence that such person is registered under the provisions of this Act.

XXVI. Every person who shall receive a certificate of his qualification to practise under the provisions of this Act shall be entitled to be registered in the Register of Medical Practitioners as a "Licentiate in Medicine and Surgery," upon the production of such certificate to the Medical Registrar or to one of the said Assistant Medical Registrars.

XXVII. Every person registered in respect of any qualification possessed by him before the 1st day of December, 1856, shall be entitled in every part of the United Kingdom to practise according to the nature of his qualification.

XXVIII. Every person registered as a Licentiate in Medicine and Surgery shall have the right to practise in Medicine, Surgery, Midwifery, and Pharmacy in every part of the United Kingdom.

XXIX. Every person entitled to be registered in respect of any qualification as a Surgeon, existing on or before the 1st day of December, 1856, and also to be registered in respect of any qualification then existing as an Apothecary may, if he think fit, require to be registered as Licentiate in Medicine and Surgery.

XXX. Every person who before the 1st day of December, 1856, shall have been registered in respect of one only of such qualifications in the last preceding section mentioned, and

who shall have subsequently passed such Complementary Examination as the Council shall direct before any Professional Board, and have obtained such Complementary Certificate as the Council shall direct, for which he shall pay such fee as the Council shall determine, not exceeding twelve pounds, shall be entitled to alter his qualification in the Register to that of Licentiate in Medicine and Surgery.

XXXI. If any of the said Colleges or the said Faculty at any time exercise any power they possess by law of striking off from the list of such College or Faculty the name of any one of their members, such College or Faculty shall signify to the Medical Registrar the name of the member so struck off; and the Medical Registrar shall erase forthwith from the Register the qualification derived from such College or Faculty in respect of which such member was registered, and the Registrar shall note the same therein.

XXXII. If any registered Medical Practitioner shall be convicted in England or Ireland of any felony or misdemeanor, or in Scotland of any crime or offence, the Council may, if they see fit, direct the Registrar to erase the name of such Medical Practitioner from the Register.

XXXIII. No person not possessed before the said 1st day of December, 1856, of one or more of the qualifications mentioned in Schedule (B.), shall be entitled to be registered under this Act, unless he shall produce the certificate hereinbefore required, to entitle him to be registered under this Act as a Licentiate in Medicine and Surgery.

XXXIV. Every person registered under this Act who may at any time have obtained the degree of Bachelor of Medicine or Doctor of Medicine in any University of the United Kingdom, or become a Fellow or Licentiate of a College of Physicians of the United Kingdom, or a Fellow of a College of Surgeons of the United Kingdom, or a Fellow of the Faculty of Physicians and Surgeons of Glasgow, shall be entitled to have such additional qualification inserted in the register.

XXXV. After the 1st day of January, 1857, no person shall hold any appointment as a Physician, Surgeon, or other Medical Officer, either in the Military or Naval Service, or in emigrant or other vessels, or in any Hospital, Infirmary, Dispensary, or Lying-in Hospital, not supported wholly by voluntary contributions, or in any Lunatic Asylum, Gaol, Penitentiary, House of Correction, House of Industry, Parochial or Union Workhouse or Poorhouse, Parish Union, or other public establishment, body, or institution, or to any friendly or other society for affording mutual relief in sickness, infirmity, or old age, or as a Medical Officer of Health, unless he be registered under this Act.

XXXVI. After the 1st day of January, 1857, no certificate required by any Act now in force or that may hereafter be passed from any Physician, Surgeon, Licentiate in Medicine and Surgery, or other Medical Practitioner, shall be valid unless the person signing the same be registered under this Act.

XXXVII. All moneys received by the Treasurer arising from fees to be paid on examination, and on registration from the sale of registers, from penalties, or otherwise, shall be applied as follows:

1st. For such expenses of registration and of the execution of this Act as are not otherwise provided for.

2nd. For the payment of the several Examiners appointed by the Council.

3rd. For division among the several bodies appointing the Examiners of the Professional Boards, in such proportion as the Council, having reference to the number and employment of Examiners by such bodies respectively appointed, shall from time to time determine.

4th. For payment in such proportion as the Council shall from time to time determine, in aid of the museums or other scientific or professional objects of the several Royal Colleges of Physicians or Surgeons, and of the Faculty of Physicians and Surgeons of Glasgow.

XXXVIII. It shall be lawful for the Commissioners of Her Majesty's Treasury from time to time to advance and pay out of such moneys as may be provided by Parliament for this purpose, such moneys as may be required for the expenses incurred by or under the authority of the Council in the execution of this Act in the meantime, until sufficient money for that purpose shall be received from the fees payable under this Act.

XXXIX. The treasurer of the Medical Council shall enter in books to be kept for that purpose a true account of all sums of money by him received and paid, and such accounts shall, in the months of June and December in every year, be submitted by him to the Medical Council; and if the said accounts be found to be correct, the President shall sign the same, and they shall be laid before both Houses of Parliament in the month of January in every year if Parliament be sitting, or if Parliament be not sitting, then within one month after the next meeting of Parliament.

XL. The Medical Council shall cause to be published under their direction and authority a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the Medical Council shall think fit, to be called "British Pharmacopœia;" and the Medical Council shall alter, amend, and cause to be republished such Pharmacopœia as often as they shall deem it necessary.

XLI. Every person registered under this Act shall be entitled to demand and recover in any court of law, with full costs of suit, reasonable charges for Medical and Surgical aid, advice, visits, and medicine rendered or supplied by him to his patients.

XLII. After the said 1st day of January, 1857, no person shall be entitled to recover any charge in any court of law for any Medical or Surgical advice, attendance, or for the performance of any operation, or for any medicine prescribed, administered, or supplied by him, unless he shall prove upon the trial that he is registered under this Act.

XLIII. After the 1st day of January, 1857, the words "legally qualified Medical Practitioner," or "duly qualified Medical Practitioner," or any words importing a person recognized by law as a Medical Practitioner, when used in any Act of Parliament, shall be construed to mean a person registered under this Act.

XLIV. Any Medical or Assistant Medical Registrar who shall wilfully make or cause to be made any falsification in any matters relating to the register shall be deemed guilty of a misdemeanour in England or Ireland, and in Scotland of a crime or offence, and shall on conviction thereof be sentenced to be imprisoned for any term not exceeding twelve months.

XLV. Every person who shall wilfully and falsely pretend to be, or take, or use the name or title of a Physician, Doctor of Medicine, Licentiate in Medicine and Surgery, Bachelor of Medicine, Surgeon, or Apothecary, or any name, title, addition, or description implying that he is registered under this Act, or that he is recognized by law as a Licentiate in Medicine and Surgery, Physician, or Surgeon, or Apothecary, or a Practitioner in Medicine, shall, on being summarily convicted of every such offence before any two Justices of the Peace for the county, city, or place, or in Scotland before a Sheriff of the county or before the Justice of the Peace Court for the district in which the offence was committed, pay a sum not exceeding twenty pounds nor less than five pounds, to be recoverable as hereinafter described, together with all costs.

XLVI. Any two Justices of the Peace, acting in and for the county, city, or place, or in Scotland, a Sheriff of the county, or the Justice of Peace Court for the district in which the offence has been committed may hear and determine any complaint made under the next preceding clause, on the oath of one or more witnesses, or by the confession of the accused party, and shall award the penalty or punishment herein provided for such offence; and in every case of the adjudication of a pecuniary penalty and of nonpayment thereof, it shall be lawful for the said Justices, or in Scotland, for the said Sheriff or Justice of Peace Court, to commit the offender to any gaol or house of correction within his jurisdiction for a term not exceeding six calendar months, the imprisonment to cease on payment of the sum due.

XLVII. If any person shall wilfully procure or attempt to procure himself to be registered under this Act, by making or producing or causing to be made or produced any false or fraudulent representation or declaration, either verbally or in writing; every such person so offending, and every person aiding and assisting him therein, shall be deemed guilty of a misdemeanour in England and Ireland, and in Scotland, of a crime and offence, and shall, on conviction thereof, be sentenced to be imprisoned for any term not exceeding twelve months.

XLVIII. Any sum or sums of money arising from con-

viction and recovery of penalties as aforesaid shall be paid to the Treasurer of the Medical Council.

XLIX. Every person who shall be registered under the provisions of this Act shall be exempt, if he shall so desire, from serving on all juries and inquests whatsoever, and from serving all corporate, parochial, ward, hundred, and township offices, and from serving in the militia, and the name of such person shall not be returned in any list of persons liable to serve in the militia, or in any such office as aforesaid.

L. It shall be lawful for the Medical Council to make regulations for dispensing with such provisions of this Act as to them shall seem fit, in favour of persons now practising Medicine or Surgery out of the United Kingdom, by virtue of any of the qualifications enumerated in Schedule (B.); and also in favour of persons who, after due examination shall have obtained any foreign or colonial diploma or degree which, in the country where such diploma or degree has been granted, would entitle the holder to practise Medicine or Surgery; or in favour of such foreign Medical Practitioners as may at the time of the passing of this Act be holding any Medical appointment in any Hospital or public Institution; and also in favour of any Surgeons or Assistant-Surgeons in the army, navy, or militia; and also in favour of Medical students who shall have commenced their professional studies before the passing of this Act.

LI. Every Registrar of Deaths in the United Kingdom on receiving notice of the death of any Medical Practitioner shall forthwith transmit by post to the Medical Registrar a Certificate under his own hand of such death, with the particulars of time and place of death, and may charge the cost of such Certificate and transmission as an expense of his office, and on the receipt of such Certificate the Medical Registrar shall erase the name of such deceased Medical Practitioner from the Register.

LII. Nothing in this Act contained shall extend, or be construed to extend, to prejudice or in any way to affect the lawful occupation, trade, or business of chemists and druggists.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted Members of the College at the meeting of the Court of Examiners on the 6th inst.:—

Allen, George, Dean-street, Soho.
Cuthbert, Alexander, Coleraine, County Derry.
Hutchison, George Smith, Norwich.
Lovell, William Frederick, Glastonbury.
Magill, Martin, Banbridge, County Down.
Orford, Frederic James, Ipswich.
Turner, Edward Wm., Deddington, Oxfordshire.
Walker, Robert, Kendal, Westmoreland.
Wallis, Edward, Great Marlborough-street.
Watson, James Henry, Great Yarmouth.
Way, John, St. Austell, Cornwall.
Wootton, Herbert Gillan, Spalding, Lincolnshire.

Licentiates in Midwifery.—The following Members of the Royal College of Surgeons having undergone the neeessary examinations, were admitted Licentiates in Midwifery at the meeting of the Board on the 10th inst.:—

Bennett, Wm. H. R., Newfoundland—Diploma of Membership dated March 14, 1856:
Black, W. S., Chesterfield; April 11, 1856.
Dalton, F. G., Westerham, Kent; April 18, 1856.
Howell, Griffith, Llanelly, Carmarthen; May 2, 1856.
Johnson, W. F., Colchester; May 12, 1856.
Lewis, Thos., Llanrhysted, Aberystwith; July 25, 1855.
Lovell, Wm. F., Glastonbury; June 6, 1856.
Milford, Fred., Sydney, Australia; May 9, 1856.
Pigg, Charles, Wokingham, Berkshire; May 12, 1856.
Richards, D., Llandovery, Carmarthen; March 14, 1856.
Skinner, S. R., Headcorn, Kent; May 16, 1856.
Terry, E. B., Wittersham, Kent; May 16, 1856.
Tuke, J. H., Stratton, Cornwall; April 14, 1856.
Walker, Robert, Camberwell; June 6, 1856.
Wallen, W. S., Walker-pl., Rotherhithe; May 19, 1856.
Weston, E. F., Wallington, Shropshire; May 16, 1856.
Whitehaven, John George; May 23, 1856.
Worth, E. J., Devonport; April 11, 1856.

New Fellows.—The following Members of the College, having been elected Fellows at previous meetings of the Council, were admitted at a meeting of the Council, held on the 12th inst.:—

Birtwhistle, John, Cape Town, Cape of Good Hope—Diploma of Membership, dated October 9, 1827:
Catlin, W. A. N., Islington; February 26, 1851.
Edwards, Edwin, Crewe; October 5, 1838.
Leete, J. G., Thrapstone; February 12, 1830.
Pearson, J. A., Woolton, near Liverpool; Feb. 10, 1826.
Risk, K. R., Blackpool; January 10, 1840.
Spaull, Barnard, Hammersmith; April 28, 1826.
Starling, R. J., Hadlow, Tonbridge; Jan. 29, 1834.
Stevens, C. P., Biggleswade; October 18, 1839.
Tayler, W. G. W., Tywardreath, Cornwall; May 18, 1836.
Toogood, William, Ashbourne; April 16, 1841.
Turner, J. W., Kensington; February 21, 1841.
Webb, Joseph, Cobham; January 4, 1839.
Wetherhead, Thomas, Upper Baker-st.; May 30, 1838.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 12, 1856:—

Cooper, Thomas James, Canterbury.
Marsh, John, 88, St. John-street, Clerkenwell.
Simons, Joseph Anthony, Bristol.
Swann, Henry John, Burrowden, Rutland.

DEATHS.

Caines.—On Tuesday, the 13th May, 1856, at his residence, Uffculme, Devon, after a few days' illness, of enteritis, George William Caines, Esq., in the 43rd year of his age, M.R.C.S. Eng., 1839, L.S.A. 1844, leaving a widow and large family wholly unprovided for. The deceased gentleman was Medical Officer of Uffculme, Willand, Halburton, Uplowman, and Sampford Peverell, in the Tiverton Union, and is mourned by a large circle of friends, who esteemed and valued him as a private friend, as well as in his Professional capacity.

Holland.—June 16, Thomas Seward Holland, Esq., M.D., aged 29. The deceased returned on Saturday last from Renkioi Hospital in the Dardanelles, where he was Assistant-Physician. He came home in the *Alice Jackson*, transport, having in his charge the nurses and other servants of the Hospital. He had been gone from England about fourteen months, and, on his return appeared much stouter and in better health than when he left. On Monday he was apparently quite well, and went to transact some business at the War Office, and on his return home walked up and down the garden with his brother-in-law. After that he left to go to his lodgings, and about eight o'clock next morning Dr. Ladd, his brother-in-law, was called to see him. When Dr. Ladd arrived at the house, he found Dr. Holland lying in bed, on his face, quite dead. He was subject to epileptic fits, and Dr. Ladd was of opinion that while in such a fit he had turned on his face and died. While a student at Dublin, he had been subject to epileptic fits. We believe that the deceased gentleman had latterly been writing a great deal for a publication relative to the late War.

APPOINTMENT.

Guy's Hospital.—At a General Court of the Governors of Guy's Hospital, held on the 18th of June, Dr. Owen Rees, of Albemarle-street, was elected Physician, Dr. Wilks, of St. Thomas's-street, was elected Assistant-Physician, and Mr. Cooper Forster, of Wellington-street, London-bridge, was elected Assistant-Surgeon.

TESTIMONIAL.

Chipping Campden.—A large and highly respectable meeting assembled at the Town Hall of Campden, on Tuesday, the 3rd inst., for the purpose of presenting to J. A. Cooksey, Esq., M.R.C.S., an address and a costly testimonial, expressive of the high estimation in which he is held by his neighbours, patients, and friends. The address which was presented contains the following remarks:—"Events have occurred in Campden which your friends cannot suffer to be passed over in silence. Your public spirit and moral courage have been severely tried;

your reputation has been unjustifiably assailed, and in the defence of it you have been put to expense which we cannot permit you to bear alone. The cause of morality was in danger. Your testimony alone could determine on which side the wrong lay. You were appealed to for that testimony. Feeling that the cause of truth was paramount to private interest, you responded to that appeal, and availing yourself of the process prescribed by law, made a statutory declaration upon the subject in dispute. You thus upheld the right without any act of publication, without any breach of professional confidence, and without injury to any person. But as soon as it became known that you had made such a declaration, you were involved in proceedings at law for libel, which were prosecuted with great bitterness and a lavish expenditure of money." The address, which was beautifully written upon vellum, and enclosed in a Russia leather case, with silver mountings,—together with a massive and elegant salver, made expressly for the occasion, by Messrs. Garrard, of Panton-street, London, on which the following inscription was admirably engraved, was then presented:—"Presented, with two hundred guineas, to John Alexander Cooksey, Esq., M.R.C.S., of Chipping Campden, by a large circle of friends and neighbours, who desired to express in the warmest possible way their personal regard, their sense of his private worth, their estimation of his professional abilities, and their sympathy with him in the losses incurred by the fearless discharge of a painful public duty. —June 3rd, 1856."

Aberdeen Universities.—In the House of Commons, on Monday, the Lord Advocate announced, in reply to Mr. Thompson, that it was his intention to introduce a Bill, in the present session, if possible, for the union of the Aberdeen Universities.

Miss Nightingale is expected to arrive in England about the middle of next month.

The Medical Practitioners' Bill.—In the House of Commons, on Monday, Mr. Cowper, in answer to a question from Mr. Wise, said that, as this bill had been approved unanimously by the select committee, it was his intention to proceed with it on the day for which it was fixed.

Medical Relief.—In the House of Commons, on Monday, Mr. Bouverie, in answer to Sir John Trollope, stated that the three recommendations of the Committee of 1854, upon Medical Relief to the Poor, had been, or were being, complied with.

Trial of William Dove.—The commission of the York summer assizes will be opened on Monday, the 7th of July. The trial of William Dove, charged with poisoning his wife, Harriet Dove, at Leeds, by strychnine, is fixed for Wednesday, July 16.—*Leeds Mercury.*

Measles and Small-Pox.—Measles has rather suddenly taken the place of Small-pox at Dundee. In that town the deaths from that disease amounted to 1 in January, 4 in February, and 7 in March; but during April no fewer than 30 deaths from measles were registered, thus constituting 15 per cent. of the total mortality. This appears to have been the usual sequence of epidemic small-pox in Scotland previous to the introduction of vaccination. According to the Old Mortality Bills, epidemics of small-pox were almost always followed by virulent epidemics of measles, and the connexion between the two diseases was, in numerous instances, very striking. Thus, in Edinburgh, in 1761, small-pox was less fatal than it had been for twenty years, only 6 persons having died from its effects, and the deaths from measles amounted to 1 only. The next year an epidemic of small-pox broke out, and cut off 274 persons, and the epidemic of measles, which followed close on its heels, proved fatal to 106 persons; but when, again, in 1764, the deaths from small-pox fell to 6, the deaths from measles fell to 3. Measles is gradually taking the place of scarlet fever in Edinburgh, but is, in general, of a mild type, very different from the form it assumes when it follows small-pox.

Iodo-Tannic Fluid in Ulcers.—M. Robert has, of late, derived much advantage from this application as a dressing for wounds and ulcers. It is especially indicated in atonic wounds, and old or strumous ulcers. The preparation is thus made:—Iodine 5 parts, and tannin 45, are thoroughly rubbed up in a porcelain mortar, and then 500 parts of cold water are gradually added. This is filtered, and evaporated to 100 parts. A stronger preparation is also formed by combining 5 parts of iodine with 10 of tannin, and evaporating to 85 parts of water.—*Gaz. des Hôp.*, 1855, No. 140.

Births, Deaths, and Marriages in Scotland.—The following are the chief particulars relating to eight of the principal towns of Scotland, during the month of April, 1856. During the month there were registered 2861 births, of which 1481 were males, and 1380 females; 1910 deaths, of which 971 were males, and 939 females; and 526 marriages. Allowing for increase of population, this would give at the rate of one birth annually in every 25, one death in every 37, and one marriage in every 135 persons. Of the 1910 deaths in the eight towns, 895, or 46 per cent., were under five years of age. The proportion of deaths under five years in the different towns was, in Perth, 32 per cent. of the total mortality; in Edinburgh and Aberdeen, each 39; Leith, 43; Paisley, 46; Greenock, 48; Glasgow, 49; and Dundee, 55 per cent. The deaths from the zymotic (epidemic) class of diseases amounted, in the eight towns, to 489, thus constituting 25 per cent. of the total mortality. The proportion of deaths from this class, in the different towns, amounted, in Aberdeen, to 22 per cent. of the total mortality; in Glasgow and Perth, to 23 per cent.; in Edinburgh and Paisley, to 25; in Greenock, to 32; and in Dundee, to 40 per cent. In Leith the proportion cannot be stated with any approach to accuracy, seeing that *no less than* 13 *per cent. of the deaths were registered without any cause being assigned for the fatal event.*

Mortality Notabilia.—In the week that ended on Saturday the total number of deaths registered was 1027. In the corresponding weeks of ten years 1846-55 the average number was 930, which, for the sake of comparison, should be raised according to increase of population, and in this case will become 1023. The actual number agrees closely with the result obtained by calculation; and it may be affirmed, that the health of London, if not better, is also not worse, than might be expected at this healthy season of the year. The epidemic class of diseases, the chief index of condition in the warm months, does not exhibit any unusual features. The deaths enumerated under this general head were 240 last week, while the corrected average of corresponding weeks is 233. An ivory turner, aged 56 years, died of "chronic bronchitis, arising from the irritation of ivory dust," after an illness of three years. Sixteen women died after childbirth; 27 persons died from cancer; 5 from furuncular disease.

Births.—The births of 823 boys and 749 girls, 1572 children, were registered—average, 1372.

Meteorology.—The mean height of the barometer in the week was 29·829 in.; on Sunday (the 8th) the mean reading was 30·084 in.; the highest in the week was 30·09 in. on that day. The mean temperature of the week was 59·1°, which is 0·6° above the average of the same week in 38 years. The mean temperature was above the average on every day till Saturday, when it was depressed to the extent of 6·1° below the average. The thermometer in the shade rose to 74·3° on Wednesday, the highest point in the week; and in the sun on the same day to 102·3°. The lowest in the shade was 46·2°, also on Wednesday, and, therefore, the entire range of that day and also of the week, was 28·1°. The mean dew-point temperature was 52·0°, and the difference between that and the mean temperature of the air was 7·1°. The mean temperature of the water of the Thames was 62°; higher by three degrees than the mean temperature of the air. Wind southwest; rain 0·53 in. Horizontal movement of air 895 miles; electricity variable.

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week:—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	2	7	10	5	2	3
North	490,396	3	5	4	14	3	18
Central ..	393,256	2	9	7	14	1	3
East.....	485,522	1	6	8	8	2	13
South	616,635	1	14	4	13	6	11
Total..	2,362,236	9	41	33	54	14	48

DEATHS IN PUBLIC INSTITUTIONS for the Week ending June 14 :—

	Males.	Females.	Total.
Workhouses	54	65	119
Prisons	1	1	2
Military and Naval Asylums ..	6	..	6
General Hospitals	37	21	58
Hospitals for Special Diseases ..	11	10	21
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	..	..	..
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	2	7	9
Total	113	104	217

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, June* 14, 1856.

Causes of Death.	In the Week ending Saturday, June 14, 1856. Deaths of Persons. At all ages.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
	Mean temp.						
Mean Temperature	59°1						57°6
All Causes	1027	460	168	193	164	37	930·2
Specified Causes	1018	458	167	192	164	37	924·3
Diseases:—							
1. Zymotic Class	240	181	28	14	16	1	212·3
2. Dropsy, Cancer, and others of uncertain seat	55	4	14	21	14	2	40·9
3. Tubercular Class	194	66	77	42	8	1	189·4
4. Of Brain, Nerves, etc. ..	120	54	9	25	27	5	110·3
5. Of Heart, etc.	44	6	7	15	14	2	33·9
6. Of Respiratory Organs ..	124	58	7	20	34	5	116·0
7. Of Digestive Organs ..	58	16	8	19	13	2	57·9
8. Of Kidneys, etc.	14	1	3	8	2	..	12·2
9. Of Uterus; viz. — Puerperal Disease, etc. ..	12	1	4	6	1	..	8·1
10. Of Joints, Bones; viz.— Rheumatism, etc. ..	15	5	3	4	3	..	7·0
11. Of Skin, etc.	5	..	1	4	..	..	1·2
12. Malformations	1	1	..	..	..	..	3·9
13. Debility from Premature Birth, etc.	23	23	..	..	..	..	22·9
14. Atrophy	31	21	..	2	8	..	25·2
15. Age	37	..	..	..	18	19	36·5
16. Sudden	6	3	..	1	2	..	10·6
17. Violence, Privation, &c...	39	18	6	11	4	..	36·0
Causes not specified.. ..	9	2	1	1	..	..	5·9

BOOKS RECEIVED.

Velpeau on Cancer of the Breast. Translated by Dr. W. Marsden. London: Renshaw. 1856.

A Practical Treatise on Stammering. By J. H. Ayres Poett, M.D. London: Churchill. 1856.

Chemistry: Theoretical, Practical, and Analytical, applied to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part 23.

Report of the Committee of Visitors of the Lunatic Asylum for the North and East Ridings of Yorkshire. 1856.

On the Administration of Medical Charities. By Armstroug Todd, A.B., M.B., etc. Manchester.

TO CORRESPONDENTS.

THE MEDICAL DIRECTORY.

This work, so useful to the Profession, will for the future be prepared under the superintendence of, and solely published by, Mr. Churchill, the Proprietor having made this arrangement with a view of securing every available aid for promoting the accuracy and completeness of this now recognized and essential work. No two Directories can be complete; for information furnished to one must in some degree detract from the completeness of the other. The Profession, therefore, should be cautious in responding to a circular recently issued. The usual Circular from the London and Provincial Medical Directory will as heretofore be duly forwarded to every member of the Profession the first week in August.

Students.—Fuller's work on Rheumatism, Rheumatic Gout, and Sciatica; and Mr. Spencer Wells's volume on Gout.

Dr. Neale, Ombersley.—The occurrence of hæmorrhage into the substance of the brain could not be ascertained with certainty without a *post-mortem* examination; and as the gentleman who attended the case was summoned by the Coroner, and was instructed to make the autopsy, he at least (namely, the gentleman in attendance on the case,) has surely no right to complain.

The Mother of the Child.—We cannot discover what advantage would result from publishing the communication. It is not our habit to criticize, on *ex parte* statements, the practice of our Professional brethren. Some good reason may have existed in the mind of the Practitioner for the treatment which he adopted.

Dr. Oldham's paper will appear very shortly, probably in a week or two. Our esteemed contributors must really have patience, for the perusal of our columns will show the great mass of valuable matter which is now at our disposal, and which we are publishing as regularly as the space at our command will permit.

Querist.—We cannot recommend the work or the Practitioner alluded to. Hooper's Physician's Vade-Mecum, by Dr. Guy, and Druitt's Surgeon's Vade-Mecum, contain much useful information on the subject.

Vigilans.—None of the articles on the subject were written by the gentleman mentioned.

Omicron.—The examinations at the College of Physicians for Extra-Licentiates is the same as that for the Licentiates, as far as the written papers are concerned; but the *viva voce* examination for the former is conducted by the Elects, and that for the latter by the President and the Censors.

Mr. Newbery.—You must bring evidence of having devoted four years to the pursuit of Professional knowledge.

Impatiens.—Dr. Copland's Dictionary is not yet quite finished, although it is rapidly approaching its completion.

An Apprentice.—The best books to consult are Holden on Human Osteology, and Wilson's Anatomist's Vade-Mecum.

Tyro.—The study of Botany should by no means be neglected. Besides its relations to Medicine and Physiology, it brings the student acquainted with some of the most beautiful works of nature, and its pursuit is calculated to improve both mind and body.

We have received the Statement from the Royal College of Surgeons upon the New Medical Bill; but as it has already appeared in the daily Journals, we think it unnecessary to republish it.

Mr. Henry Gramshaw's paper has been received, and will appear in due course.

COMMUNICATIONS have been received from—

Dr. W. D. Moore; Dr. Neale; Mr. G. P. H. Milson; Dr. Hyde Salter; Mr. T. H. Huxley; Dr. R. D. Thomson; Dr. Churchill, Dublin; Dr. Snow; Students; Dr. Oldham; Dr. Webster; The Geological Society; The Mother of the Child; The Crimean Medical Society; Dr. Radcliffe; Mr. U. R. Macey; Querist; Vigilans; Mr. Thomas Westropp; Dr. Andrew Smith; Mr. Gramshaw; Mr. W. T. Fernie; An Assistant-Surgeon, Madras; Mr. W. C. Cooksey; Mr. T. M. Stone; Tyro; Mr. Newbery; Omicron; Dr. Rigby; An Apprentice; Impatiens.

APPOINTMENTS FOR THE WEEK.

June 21. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

Royal Botanic Society, 3¾ p.m.

23. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

24. *Tuesday.*

Operations at Guy's, 1 p.m.

Royal Medical and Chirurgical Society, 8½ p.m.

Zoological Society, 9 p.m.

25. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

Royal Society of Literature, 8½ p.m.

Microscopical Society, 8 p.m.

26. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

27. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Edward Smith, "Certain Views on the Nature and Treatment of Phthisis."

ORIGINAL LECTURES.

A CLINICAL LECTURE ON MULTIPLE SUBCUTANEOUS CANCER.

By THOMAS LAYCOCK, M.D., F.R.S.E., etc.,
Professor of Practical Medicine and of Clinical Medicine in the University of Edinburgh.

Cancerous Tubercles over Anterior Surface of Trunk.—Subpleural Cancerous Tumour.—Cancer of Mediastinum, Heart, Lungs; of the Lymphatic Glands of Groin, Neck, and Thorax; of Mesenteric Glands; of the Spleen, Vermiform Appendix, and Inner Surface of Cæcum.

Case.—(*Reported by Mr. Haig, Clinical Clerk.*)—George Boyd, aged 39, married, a shoemaker, residing in Dunbar. Admitted on 11th April, 1856, into Ward No. 1, under care of Dr. Christison.

Patient states that formerly he was at times very intemperate, being unable to restrain himself from going to excess when once he had tasted spirits.

About three years ago, however, he abandoned their use entirely for some time, and since then, when he has partaken at all, it has always been in moderation.

He enjoyed good health till eighteen months previous to admission, when he began to complain of loss of appetite, sickness, with occasional vomiting, etc., but was always able to continue at work. Five months ago he was seized with shifting pains through his body, not confined to the joints. He applied to a Medical man, who gave him some medicine, which purged him severely, and, as he thinks, relieved the original pains, but brought on new ones. He has occasionally spat a little blood—yesterday about a tablespoonful.

On examination, the patient is rather thin and sallow, but not otherwise of unhealthy aspect, and presents no very distinct evidence of disease.

The respiratory organs are normal, with the exception of slight dulness beside the angle of the right scapula; but there also the respiration is equal when compared with the left side, and vocal resonance is not increased.

The heart is normal, both on percussion and auscultation. Pulse 100, small and weak.

The tongue is white and rough, but moist. There is no thirst nor dysphagia, but the appetite is small. There is no fulness in the epigastrium or hypochondria. The abdomen is concave and everywhere tympanitic, except in the right hypochondrium, where percussion is less resonant, but the dulness is not hepatic, and the liver cannot be felt.

The urine is rather scanty, but passed without pain; yielding an abundant pinkish sediment, and a copious crop of crystals of nitrate of urea.

In other respects the patient appears well, except that he complains of pain in the right shoulder, not aggravated by the movements of the joint.

After admission the patient seemed to improve for a time, the tongue becoming rather cleaner and the appetite better. He suffered from a pain in the right side, which ceased after the application of several blisters, none of which ever rose. Urea was detected in the urine up to the 19th inst.

April 23.—Passed a bad night, on account of the cough, which was so severe as to cause slight vomiting. He complains of constant pain in the stomach, worse after taking food. The tongue was slightly furred, but moist. Pulse 84, small. The ankles were slightly œdematous. The sputum was scanty, consisting of viscid, frothy mucus. He was ordered to take small doses of hydrocyanic acid and biborate of soda. After this he again complained of pain in the right shoulder, and also of pain at the lower part of the sternum, increased by pressure, always worse after taking food.

On the 30th, when transferred to Dr. Laycock, he complains of a burning pain extending from the ensiform cartilage across the left infra-mammary region; and this is, for the first time mentioned as being the seat of a hard lump, tender on pressure, and capable of being easily covered by the palm of the hand, which he says has existed for two months.

May 3.—He commenced yesterday to take 10 drops of syrup. iodid. ferri, three times a-day. This evening a careful physical examination was made, of which the following is the report:—

The tongue moist and clean; the appetite pretty good. No thirst; no pain nor tumour in the abdomen. The bowels are costive; hepatic dulness normal in extent. The cough is frequent, chiefly at night, accompanied with glairy expectoration, faintly streaked with blood. Both supra-clavicular regions are equal on percussion, but the left infra-clavicular is rather more resonant than the right. Expansion and vocal fremitus are equal on both sides, except in the left mammary region, where there is a bulging of about three inches in diameter extending from the third to the sixth rib, and rather to the outside of the nipple. To the touch it feels hard, and the subjacent intercostal spaces cannot be felt. Anteriorly, the right side is normally resonant. Descending from the left clavicle in a line rather external to the nipple, resonance is perfect down to the third intercostal space; it is then dull for about an inch; followed below and external to the nipple by a spot quite tympanitic; below which resonance is again normal. The tympanitic spot is in the centre of the swelling already described, and measures nearly two inches in diameter. In the left axilla there is an undefined tumour situated on the third rib, and extending forwards to the anterior swelling. Laterally, percussion is normal; posteriorly, it is rather less resonant on the right than on the left in its whole extent. The respiratory murmur is fainter over the right than on the left side. In the left infra-clavicular space it is rather harsh. Over the bulging in the left side it is faint. Neither the extent of the cardiac dulness nor the point of the apex-beat can be determined, on account of the bulging. The cardiac sounds are distant, and masked by the respiratory murmurs. No murmur is audible with either sound. Pulse 136, very weak and compressible. There is enlargement of the axillary and cervical glands—the latter on the right side constituting a tumour of some size; and a number of subcutaneous pea-like tubercles, not painful on pressure, are scattered over the anterior surface of the thorax and abdomen. The urine is normal in quantity, high-coloured, and very turbid, and depositing a copious pinkish sediment. It is acid, sp. gr. 1036; yields a faint precipitate of phosphates on the application of heat, but contains no albumen. Chlorides abundant.

For some days the general health of the patient seemed rather to improve. On the 8th, however, he is reported as having a burning pain in the swelling on the left side of his chest, for which an emplastrum belladonnæ, 4 by 4, was applied. The pain then left this part and settled in the epigastrium and lower part of sternum, occasionally shooting to the right shoulder; it soon, however, returned to the old situation. Last evening, also, his cough was very severe, and more blood than usual was spit up. A purgative, too, which he took was almost immediately vomited. Still continues the iodide of iron.

11th.—Still complains of pain in the chest and stomach; the latter has been relieved, but never quite dispelled, by carminatives. He sleeps ill, and has no appetite; stomach irritable. Again vomited a purgative which was given him; bowels very costive for three days past. No change in the respiratory system. Sputum scanty and viscid, with only one or two specks of blood. Pulse 126, compressible; urine same as last reported.

13th.—No improvement. The patient is very weak, and has not been out of bed since last report; appetite quite gone; refuses to take any solid food, on account of distension of the stomach which takes place afterwards; and has, therefore, lived on arrow-root, etc., for some days. Pain still continues. The glands of the neck swollen and painful, especially at the angles of the jaw. For a day or two he has felt difficulty in breathing; owing, he thinks, to having caught a little cold; and, this morning, dulness on percussion is found to extend over all the right posterior region, accompanied by harsh tubular breathing. The breathing was considerably relieved by dry cupping over the back. Anteriorly, on the right side, there is no dulness above the fifth rib. Pulse 126; respirations 26.

14th, noon (at visit).—Very weak, having passed a restless night. Just when in the act of falling asleep he was seized with a strange feeling of suffocation, which caused him to start up immediately and gasp for breath; and after this he suffered a good deal from dyspnœa, especially towards morning. Dulness and tubular breathing still continue posteriorly on the

right side. Anteriorly, expiration is prolonged, and sometimes accompanied with slight sibillation, but no very accurate examination can be made on account of his weakness. Pulse 130, very weak; extremities rather cold, and lips slightly bluish; pronounced moribund.

About two o'clock in the afternoon the patient was sitting up in bed, leaning forwards, when suddenly he fell a little over to the left side, and died without a struggle.

Sectio Cadaveris, May 16, 1856.—On opening the body a cancerous tumour was found on the left side, behind the costal pleura, completely surrounding the fifth rib, and extending on either side to the fourth and sixth, corresponding to the swelling outside the thorax; but showing nothing to account for the tympanitic spot. The disease did not extend to the lung at this part. At the upper part of the anterior mediastinum, and adhering to the sternum, was another cancerous mass of considerable size, from which a prolongation extended into the left lung, and was diffused through its substance. The right lung was completely engorged with blood; and the bronchi, especially those at the upper part, were surrounded by a cancerous deposit, which was not connected, like that in the other lung, with the mediastinal tumour. When the pericardium was laid open it was seen to contain a considerable amount of a thin sanious fluid; and, at the posterior part of the sac, whither it had gravitated, was a quantity of blood which appeared to have flowed from a fungating cancerous mass occupying the inner surface of the pericardium round the origin of the aorta and pulmonary artery. The heart itself was much diminished in size, and weighed 9 oz. The vagus nerve ran along the posterior border of the mediastinal tumour, and was evidently pressed by it, as well as by several of the glandular tumours in the neck. The liver, kidneys, and pancreas showed no evidence of disease. The spleen contained several small, round, whitish masses, which under the microscope showed numerous cancer cells. The glands in both axillæ, and both sides of the neck, one tonsil, the mesenteric glands, and the vermiform process of the cœcum, were all enlarged, and the seat of cancerous deposit, as also were the glands in both groins, but to a much smaller extent. The glands in the neck involved branches of the cervical plexus. The nodules, scattered over the surface of the body, were of the same character, and some of them had undergone softening, and contained cancerous juice, and the interior of the cœcum was the seat of a cancerous ulcer.

Commentary, by Dr. Laycock.—The leading points in this case of Boyd, as he was first presented to our notice, were:—

His dusky, pallid complexion; the woe-stricken expression of his eye, and countenance generally; his debility and listlessness; his age; the chronic nature of his ailment; the neuralgic, and at the same time, vague character of the pains he complained of, and which he referred to various parts of the thorax, but principally to the right shoulder; of the right side increased on muscular movement, as putting on his coat; pain across the lower part of the sternum, or from zyphoid cartilage across the left mammary region; sleeplessness.

Cough, with expectoration of glairy mucus, scanty, mingled with blood, of a dark grumous character. A hard tumour, the seat of neuralgic pains, situate beneath the third to sixth rib. Enlarged axillary glands; enlarged cervical glands, especially on the right side; sub-cutaneous tubercles, the size of a pea or less, not painful on pressure, but the seat of pain, scattered over the anterior surface of the thorax and abdomen.

The general manner, the complexion, and the character of the pains, indicated that the thorax was the seat of cancerous deposit; and that the tumour beneath the ribs, the enlarged glands, and the sub-cutaneous tubercles, were also of that nature. The autopsy proved the correctness of this surmise.

It is not easy to describe in words the characteristics of the cancerous diathesis. Boyd presented them in a marked degree for a fortnight previously to death. No case could be more typical. The cadaverous pallor he manifested is not, however, a necessary part of these characteristics; for under the use of chalybeates, wine, and nutritious diet, that may be sometimes made to disappear. What is the more constant is the expression in the eyes of rooted sorrow, and in the manner of continued suffering, even when the pain is not described as being very acute. Nor need it be confounded with the expression of countenance in confirmed and typical melancholia, in which the complexion is often remarkably cadaverous (almost of a bistre tint); for in melancholia there is a knitting of the brows, and an expression in the eye not so indicative of a subdued manner as in cancer. In melancholia, too, the individual is restless, and walks much backwards and forwards, turning or stopping abruptly, with an abstracted air. The cancer patient is quiet, even languid, in his movements. His circulation is feeble; his vital powers low. In this case this was shown by the significant difficulty of exciting vesication.

It is not so easy to distinguish the tubercular from the cancerous cachexia; indeed, tubercle and cancer may coexist. Generally, however, they do not. The tubercular patient is usually younger than the cancerous; the conjunctiva more pearly, the complexion less muddy. Especially the local phenomena vary; in tubercular deposit in the lungs the physical and rational signs are more manifest, the pains less neuralgic and more localized, than in infiltrated or merely local cancer. When the cancer is of a large size, occupying one lung, or the mediastinum, the symptoms may be more decided, especially in the latter case, affecting the epigastric region neuralgically. The pain in the right side and shoulder was a prominent symptom, and may be considered as wholly neuralgic and dependent upon the pressure of the large mass of cervical glands of the right side upon the supra-scapular and thoracic branches of the cervical plexus.

The pressure on the trunk of the pneumo-gastric nerve by a cancerous mass, as proved by the autopsy, was suspected previously to death, by a remarkable condition of the respiration, and to which I specially called your attention at the bedside. At the moment of going to sleep, (when the nerves of special sense lose their sensibility to impressions,) Boyd experienced a feeling as if his breathing was ceasing, so that he started up in affright. Now the due action of the sensory branches of the vagus, distributed to the bronchial mucous membrane is necessary to respiration, so that there was, probably, a temporary paralysis of those fibrils, concurrently with the sleep of the cerebral nerves. That dreadful sensation was due, therefore, to a cessation of that incident—excitor stimulation, which the constant contact of the atmosphere with the bronchial mucous membrane induces in the respiratory ganglia, and which, indeed, in the normal condition is always so far diminished during sleep, that the respiratory and cardiac movements are slower. Perhaps to the same source may be traced, in part at least, the bronchitic cough.

But the pneumo-gastric sends branches also to the stomach, and to the pressure of the cancerous masses on this great trunk-nerve may be also attributed the burning pain felt about the epigastrium, as well as the anorexia and gastric irritability. This opinion derives support from the fact, that in reported cases of mediastinal cancer these symptoms are noted as prominent, and not to be traced to local visceral disease.

The vomiting supervening on a fit of coughing, as well as the fit itself, was connected during life with the right tonsil and the concomitant pharyngeal irritation.

The paralytic condition of the organs (if it were paralytic in its nature) to which I have referred, supervened in the course of an acute pulmonic attack. A few days ago we witnessed an analogous affection of the recurrent nerve in a case of aneurism of the arch of the aorta. The most acute laryngismus stridulus was developed in that case in the course of an acute influenza attack.

As to this attack of Boyd's it had a seven days' duration, and was characterized by extensive pulmonary congestion of both lungs, and of which he was dying at our visit of the 14th May. He spat up an unusual quantity of blood, and the cough was unusually severe during the nights of the 7th and 8th. On the morning of the 8th he was particularly weak, and on the 16th (seven days after) he died, a few hours sooner than was anticipated, probably in consequence of hæmorrhagic effusion into the pericardium from the fungating mass of cancer within.

Some lessons in diagnosis may be drawn from this case. First, as to the physical diagnosis. The centre portion of the intra-thoracic tumour was so tympanitic as compared with the sides, that we were led to suspect the presence of air, derived probably from a cancerous perforation of the lung. Yet there was no perforation, no connexion at all between the tumour and the lung; no gas in the tumour. The tympanitic character was a fallacious sound; it was simply due to the fact that the tympanitic spot corresponded with the intercostal space over the healthy lung; while the dull spots corresponded

to the two ribs which bounded it. The tumour and the rib together rendered the percussion sound dull.

It is noticeable, too, that there was no clue given by cardiac auscultation to the cancer of the pericardium, although, from the near proximity to the heart of the sub-costal mass, it was suspected all along to have affected the heart, and special auscultation and research was directed to that organ.

Again, there was no suspicion excited during life that the mesenteric glands, and vermiform process, were the seat of cancer; or that there was cancerous ulceration of the cœcum. The symptoms pointed exclusively to the thorax; there was no abdominal pain, no diarrhœa, no perceptible indication of degeneration within the abdomen.

The scattered pisiform masses scattered over the anterior surface of the thorax and abdomen confirmed me in the conviction that we had a cancerous disease to treat. I know only two cases on record quite analogous to ours in this particular. The one is described by Cruveilhier in the thirty-second Livraison of his Anatomie Pathologique; the patient was a woman, aged 30, who died the day after her admission into the Hotel Dieu. The other was carefully observed in the University College Hospital, and commented on by Professor Walshe, three or four years ago. In that case the whole surface anteriorly of the chest and abdomen was the main seat, as in Cruveilhier's and our case, of the cancerous nodules; the posterior surface, and the limbs, neck, and face, did not wholly escape. In our case, the progress of the disease was cut short too soon for so extensive a development, but they were manifestly increasing in numbers and size before death. In Boyd the liver escaped, but the spleen was the seat of cancerous deposit; in Dr. Walshe's case, the contrary was the case; in Boyd, the kidneys were unaffected also; but in several other particulars there was so considerable a similarity of distribution of the cancerous deposit that the three cases may be classed together. Agreeing in the common character of multiple subcutaneous cancer, developed exclusively, (in two,) or mainly, (in Dr. Walshe's,) over the anterior surface of the thorax and abdomen, they differed as to the organs affected in detail; in Cruveilhier's case, there were melanotic as well as encephaloid masses. In that the liver and spleen were unaffected, but the peritonæum and kidneys were the seat of disease. The abdomen was more affected than the thorax, for the heart was untouched; and in addition to a melanotic mass, the size of an apple, attached to the left lung, there was only a large number of small grey melanic tubercles scattered over it. The pelvis was filled with a large encephaloid mass, springing from the sacrum; the lumbar vertebræ, as well as the sacrum, were carious; and melanotic masses accompanied the common iliac and hypogastric arteries and veins.

The date of the appearance of the tubercles, in Boyd, was not clearly ascertained; they existed on May 1, and probably anteriorly to that date.

We had no historical details that we could connect with a theory of the etiology of the case. As to the treatment, all that can be said, is, that he seemed to improve under the use of the iodide of iron, but no known method of treatment would have saved his life.

ORIGINAL COMMUNICATIONS.

THE CONDITION OF VISION THE BEST TEST OF THE SQUINTING EYE.

By C. HOLTHOUSE, Esq.

It is remarkable, that among the numerous writers on the subject of strabismus there should be so little accordance as to the best test for discovering the faulty eye in those cases in which the squint shifts from one to the other. To be convinced of this, one has only to refer to the works of the three latest English writers on the subject. Walton observes, "It is not an easy matter to determine which is the defective eye, and the sound eye is sometimes operated on. When this cannot be readily ascertained, I place the patient in front of me, at the distance of two or three yards, and direct him to cover one eye,—say the left,—and look at me with the other, keeping the head straight: the right eye will be in the centre of the orbit; I then direct him to uncover the left. Now, if the right, which has not been closed, is normal, it will keep its central position, while the left eye is turned inwards; but if it be deformed it will turn in, while the left will become straight. The experiment should be reversed." Again: "When a patient is under examination, he is generally excited, and exerts the orbital muscles unnaturally; and then it is out of the question to obtain a sight of the squinting eye even in a moderately quiescent state; and hence I have sometimes been obliged to wait until a second visit to detect the faulty eye." Mackenzie follows Lucas's rule for discovering whether one or both eyes are affected. "We are able readily to detect non-alternating as well as alternating strabismus, by desiring the patient to look steadily with either of his eyes at any object straight before him, while with one hand we hide the object from his other eye, but keep the hand sufficiently raised towards the temple to allow us to watch the movements of the eye which is thus shaded. Whether the strabismus is alternating or non-alternating, the shaded eye is distorted. If in such a case we close both eyes, and then suddenly raise the upper lid of either while the other remains closed, the one which is opened is seen to be distorted. If both eyes are suddenly opened, the pupil of the worse eye is discovered to be more distorted than that of the better eye. If, on trying these experiments, the eye which is shaded, or either of them, on being opened suddenly showed no obliquity, we would pronounce that eye to be sound."

Dixon observes, "When both eyes appear to be affected with strabismus and to turn inwards, it becomes a question which eye ought to be operated on. Various optical tests have been suggested to enable the Surgeon to decide this point; but it usually happens that a patient, when subjected to any of these tests, is so anxious and embarrassed, that he becomes very liable to a sudden increase of strabismus in the eye, which, on ordinary occasions, would be affected in the slighter degree; and from this cause the experiment may fail to infallibly determine the question. I believe the best rule is, to watch attentively which eye squints in the more decided manner, when the patient uses both eyes in his ordinary way, and to operate on that in which the distortion predominates."

In my lectures on strabismus, published two years ago, I pointed out the law which determines the alternation of the squint; and since then I have had abundant opportunities of testing its value, as well as proving the inutility of all other tests. This law may be thus expressed:—The less the difference in the visual power of the two eyes, the greater the tendency of the squint to alternate; and, conversely, the greater the difference in the visual power of each eye, the less the tendency to shift.

The visual power, then, is the only test that can be depended on, and the rule of practice would appear to be this:—In true alternating squint, where the power of the two eyes is alike, it is immaterial which eye is operated on; while in the false, and by far the most frequent, variety of alternating squint, that eye should be selected for operation the visual power of which is inferior.

Shortly before my return from the East, I was requested by Dr. McCraith, of Smyrna, to operate on a young Greek lady, who squinted very decidedly, though with which eye it was difficult to determine, as it continually shifted from one to the other; it seemed, however, to have a preference for the left. Walton's test failed completely; but vision was most perfect in the left; that is, in the eye apparently most affected; it was not bad in either, the patient being able to read with both, though a smaller type with the left than with the right. Notwithstanding the right eye seemed to be the straight one, I operated on it rather than on the other, owing to its less perfect vision. The correctness of the diagnosis was at once made manifest, by the extraordinary size and toughness of the tendon of the internal rectus, as well as by the rectification of the deformity in the other eye. The preference (if I may so use the term) of a squint for the better eye is a curious phenomenon that was noticed many years ago by Dr. Radcliff Hall, and is occasionally due to certain extraneous and sometimes appreciable causes. A little boy, 10 years of age, was brought to the public Dispensary for a stye on the outer part of the left upper lid; the eye on the same side was also considerably inverted. At first sight, I considered that this was a case of single convergent strabismus of the left eye; but on placing

a book before it, I found its vision quite perfect; while, on placing it opposite the other, or straight eye, he could with difficulty decipher the letters. This fact at once assured me that the latter was really the strabismic organ, and that the inversion of the opposite one was only temporary. In the course of a few days, the stye had disappeared; and as I anticipated, the squint had disappeared with it, and had been transferred to the opposite eye. I think there can be little doubt that the inflammatory condition of the eyelid in this case determined the strabismus to the good eye; for the movement of the lids, being in great measure regulated by that of the eye-ball, the quiescent condition of the latter in the inner canthus would entail a corresponding condition of the former, and thus the pain arising from their movements be avoided. The bad eye was thus instinctively called into requisition, so that a superficial observer would readily have mistaken it for the good one.

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CASE OF DIFFICULT PARTURITION.

RUPTURE OF VAGINA, WITH PROTRUSION OF SMALL INTESTINE—RECOVERY.

By Dr. J. DICKSON.

Mrs. C., aged 25; a short, delicate woman, pregnant of her third child, was taken in labour at 4 a.m. on the 7th of March, 1856.

I was informed, that in her first labour, the child had been dead some time, and was passed without much difficulty; and that, on the second occasion, recourse was obliged to be had to embryotomy, for the reason mentioned below. I was not sent for till 4 p.m., at which hour she had strong bearing-down pains. On examination of the abdomen, the child was found to be very high, and when examined per vaginam, the head of the child was felt very high up in the pelvis, the antero-posterior diameter of which was much contracted by a projection inwards of the sacrum. The pains continued very strong, and the head was distinctly felt, passing down into the pelvic cavity. It occurred to me that the contraction was not so great as to prevent the head from passing down, if it could only adapt itself to the long diameter of the pelvis. With this hope, I waited patiently till about 6½ p.m., (*i.e.* two hours and a-half,) when after a very severe pain, (during which she exclaimed, "Some one is cutting me," although at that moment I was not touching her), the pains ceased entirely, there being no rigor or sudden discharge of blood to account for the cessation. From her cry, and the non-return of pains, I fully expected that rupture of the uterus had occurred, but no symptoms to indicate such a state of things showed themselves. She lay perfectly tranquil, and expressed herself grateful to be easy for a few moments. All this time the pulse continued good, and no untoward symptoms showed themselves. On making a careful exrmination per vaginam, I found a protrusion on the left side, of what appeared to me to be a small bag of membranes, it being soft, smooth, and yielding, and the head could not now be felt. Not liking the aspect of the case, I sent for my friend Dr. Brohier. During the interval which occurred before he arrived, she was taken with vomiting, and complained of a violent pain in the epigastrium. No pains recurred, and the pulse continued good, though weak. On Dr. Brohier's arrival, I mentioned to him what had occurred, and, after consulting together, we agreed that the best thing to be done, was to turn the child, and deliver as speedily as possible. On introducing my hand for the purpose, I passed, in the upper portion of the vagina, a pretty large mass of a smooth, yielding substance, and going further, succeeded without much difficulty in getting hold of the left foot, which I brought down; this was speedily followed by the right one, and, by using gentle traction, the body came down, the arms were released, and then came the difficulty about the head. By dint of gentle traction, aided by a see-saw movement, we succeeded in getting it into the world, quickly followed by the placenta. The child was a female, fully developed, but rather below the usual size. After the expulsion of the child, we proceeded to examine the soft, yielding body, and, to our dismay, discovered a very considerable portion of the small intestine, perfectly purple, and composed of several convolutions of it. We examined further, and found a large rupture of the upper portion of the left part of the vagina, extending to the cervix uteri. The gut was carefully returned into the abdomen, and moderate pressure employed for the uterus. The pulse was then 120, small and fluttering. We thought it right to inform her friends of her great danger, and of the critical position in which we found her, and told them we feared she would not survive until the morning. I omitted to mention that the child was born at half-past eight, about two hours after the sudden cessation of the pains.

March 8, 7 a.m.—To our surprise, when we called in the morning, we found that she had slept quietly, off and on, through the night, being occasionally disturbed by afterpains. The abdomen was soft, and perfectly free from pain. She had had no return of vomiting; had not micturated. The skin was moist; there was no thirst; no coldness of the extremities; and no pain in the epigastrium. Pulse 100; soft, though feeble. On examining per vaginam, things were found quite *in situ*. No further descent of gut had taken place.

6 p.m.—Has had severe after-pains, and has micturated several times. Pulse as before.

9th, 8 a.m.—Has passed a quiet night, occasionally disturbed by after-pains. Slight pain in abdomen on pressure; no tympanitis. Skin moist; tongue rather dry at tip; no thirst. Has passed water freely. Pulse 100; soft. Ordered to have warm fomentations to bowels, and to take Ol. ricini ℥ss.

10th.—Has passed a quiet night. Ol. ricini has had no effect, as she did not take the quantity ordered. No tenderness over abdomen. Skin cool; tongue moist; no thirst. Pulse 104; yielding.

℞ Ol. ricini ℥i.; statim sumend.

11th.—Has slept well. No tenderness over abdomen; no thirst. Tongue clean and moist. Pulse 96; moderately soft. Lochial discharge very copious. Bowels several times freely relieved.

12th.—Was seized last night, about 5 p.m., with a violent rigor, which lasted about an hour, but did not prevent her having a comfortable night. On inquiry, I ascertained that in her two former confinements, the milk-fever had been ushered in by a rigor. The breasts are filling. Lochial discharge continues. Slight pain on pressure in lower part of right hypochondrium. Tongue moist; skin rather hot. Has slight thirst. Pulse 104; rather hard. Bowels open.

Appl.: Sinapism lat. dext. parte dolent.

13th.—Much relieved this morning. Has slept all night. Milk copious; skin moist; tongue clean. Bowels not relieved. Lochial discharge not so copious. Pulse 96.

℞ Ol. ricini ℥i.; statim sumend.

14th.—Abdomen soft and indolent. Mammæ rather flabby, with very little milk. Lochial discharge nearly gone. Skin moderately hot and damp. Pulse 100; weak. Bowels moved yesterday. Slept last night. Feels easy, but weak.

15th.—Continues to improve. Sat up in bed the greater part of yesterday. Has passed a very tranquil night. Pulse 96; weak. Bowels free.

17th.—Progressing favourably.

19th.—Has had a good night. Expresses herself as quite well, except that she cannot lie on the left side. Pulse 78; soft. Appetite good. Tongue clean and moist. Bowels regular.

21st.—Remarkably well, and sitting up by the fire at work. On questioning her it was ascertained that all pain had disappeared.

24th.—Pronounced convalescent.

Jersey.

ON THE MODERN TREATMENT OF CHRONIC DISEASES OF THE SKIN.

By THOMAS HUNT, F.R.C.S.,

Surgeon to the Western Dispensary for Diseases of the Skin

(Continued from Vol. XXXII., page 390.)

No. III.

Pityriasis (*concluded.*)—Before taking leave of the orde Squamæ, I beg to refer the reader to several cases of this disease (pityriasis versicolor) which were related in the *Medical Times and Gazette* several months ago, for the purpose of

proving its contagious property, as something new in dermatology. I have long been familiar with the fact, and have some indistinct recollection that Rayer alludes to it; and, in confirmation of the theory of contagion, I may mention that I have met with several cases of the disease among bedfellows. At the period referred to above, I had under my care a lady, who declared that she caught it of her husband, and that during his temporary absence from home her sister slept with her and took the disease, and that the sister afterwards communicated it to another sister with whom she slept on her return home. Other cases have shown no evidence of contagion; but they have generally occurred in single persons, sleeping alone. If the disease have contagious properties in one case it would seem reasonable to infer that it never exists without them, although the disease may not be actually communicated to another person (a). I suspect, however, that two essentially different diseases are often confounded together in practice. The correspondent above alluded to, describes the pityriasis versicolor as "the eloasma of Wilson." But this throws little light on the precise form and phenomena of the disease. Indeed, nothing tends more to confusion than the multiplication of names. The disease consists of a furfuraceous desquamation, which may or may not assume a peculiar colour; and this appearance may exist whether in its well-defined or more diffused form, either as a permanent or temporary disease. The permanent form of this affection is generally congenital, although it may escape notice at birth. It is incurable, and can scarcely be called a disease, as there is no itching or other inconvenience attending it; but even in this form it will disappear for a time whenever, after eruptive fevers or other causes, a general and rapid desquamation of the epidermis occurs. The temporary form, again, consists of two distinct diseases: one of them occurs during pregnancy or some other peculiar state of the general system; the other is contagious. This latter is the only form amenable to treatment, and it is found to yield far more readily to the liq. arsen. chloridi than to the liq. potassæ arsenitis. The sulphureous acid, benzole, and other external applications, are only efficacious for a time. They are said to destroy the parasitic fungus in which the disease consists; but, granting the truth of the fungoid theory, it is found in practice, just as in agriculture, that destroying the existing weeds will not root them out of the soil. Internal remedies act by rendering the soil (to continue the figure) unproductive, incapable (that is) of supporting the morbid vegetation. On this principle I prefer to avoid topical medication, as this prevents our ascertaining whether the disease is radically cured or not. Dr. Bateman describes the disease as not of sufficient importance to induce the patient to persevere in swallowing medicine; but I have seldom found any objection made; and, although the disease is certainly not a serious one, it is often very annoying, especially in young unmarried women, who, as well as young men, are exceedingly anxious to have it cured when they have a near prospect of matrimony.

PAPULÆ.

In papulous eruptions I have met with various success in the use of the cod-liver oil. Out of seven cases of lichen in which I have recently given it a fair trial, six appeared to receive no benefit; but in the seventh much good resulted from it.

Case 23.—*Lichen.*—J. W., aged 39, married; has been troubled with a dry papulous eruption on the front of the neck for two years, itching much. General health good, but the bowels costive. A tea-spoonful of the oil (Dr. de Jongh's) was ordered to be taken thrice a-day, with a gentle aperient if required. She took the oil regularly for three months, and the eruption is nearly well. Two peculiar circumstances were noticed in this case: the patient always perspires freely after taking the oil, and when she takes it the disease is wholly relieved of the itching. She once or twice omitted to take it for a few days, and on each occasion the itching returned. The benefit has probably resulted from the diaphoresis.

Prurigo.—In this horrible disease I have reason to speak well of the cod-liver oil, both as an adjunct to arsenic, and as a leading remedy when arsenic is inadmissible.

Case 24.—*Prurigo Formicans.*—M. W., aged 21, single, presented herself at the Dispensary March 27, 1855, complaining of a "dreadful itching" all over the body, which had tormented her most cruelly for four years. Her back, bosom, arms, legs, thighs, and abdomen were covered with innumerable pimples of the colour of the skin, and the surface was literally torn into sores by the patient's nails. She described the irritation as like the stinging of ants, and she says she has often been kept awake the whole of the night. She complained of feeling extremely weak and exhausted, the appetite was ravenous, bowels constipated, catamenia regular. She was otherwise in good condition. Purgatives were first administered, and with them the solution of chloride of arsenic in doses of 15 minims three times a-day. After eleven weeks' persevering trial of this plan, there was but a very trifling improvement in the disease, and, as she complained of cough and tightness in the throat and chest, it was thought prudent to stop. She now took the cod-liver oil in the usual doses, and in about seven weeks there was scarcely a papule to be seen; the irritation had entirely subsided, and her health proportionably improved. She had gained flesh, and her appetite was no longer ravenous. She now laid aside the oil for only a few days, and the cutaneous irritation returned, but again subsided on resuming the same dose, a tea-spoonful only thrice a-day.

Case 25.—*Prurigo Formicans.*—M. T., married, aged 53, applied for relief August 24, 1855, complaining of intolerable irritation over the whole surface of the body, which was covered with minute truncated papulæ very little redder than the skin, which was much lacerated by the finger nails. The catamenia had ceased for ten years, and the disease had tormented her for five years.

August 24, 1855.—She is weak and thin, and the bowels are regular. The irritation in the skin is always aggravated by purgative medicines. Fowler's solution of arsenic, (a remedy which but rarely fails in this disease,) was prescribed in doses of five minims thrice a-day immediately after a meal.

31st.—No better. Continue the arsenic and take a gentle purgative.

September 4.—The patient is feverish, and suffering from an acute attack of urticaria. Liq. ammon. acetat., and pil. rhœi comp.

14th.—She is much better in health, but the pruritus is very tormenting. A teaspoonful of Dr. De Jongh's cod-liver oil thrice a-day. Pil. rhœi comp. alt. noct.

18th.—Skin very much better. Continue the oil.

25th.—Still improving—slightly dyspeptic. Continue.

October 2.—Mending fast. Dyspepsia better. Continue.

19th.—Scarcely any irritation in the skin. Continue the oil for a month.

These two are the only cases in which I have as yet given a fair trial to the oil in prurigo, and it may be said they prove nothing; but as forming two of many cases in which cutaneous disease has succumbed to the oleaginous treatment, it is very full of hopeful interest; for what disease has been more opprobrious to our reputation, or is more likely to drive the patient to quackery or suicide, than prurigo in its severer forms? Patients in this condition would be very willing to anoint the whole body with cod-liver oil and by so doing they would probably receive immediate relief; but the expedient would, perhaps, be too costly for dispensary practice.

PUSTULÆ.

The eruptions assuming the pustular form are mostly indicative of debility, and often of insufficient nourishment; and, therefore, the reader will not be surprised to learn that, in this class the oil has not disappointed us.

Case 26.—*Ecthyma.*—A. O., aged 2. This little girl was brought to the Dispensary covered with an eruption of large pustules, itching much, which were diagnosed scabies, a sister with whom she slept complaining also of an eruption which itched at night; but the sulphur ointment made matters worse, and the iodine lotion did but little good. The cod-liver oil was now administered internally; the child rapidly improved under its use, and recovered entirely in six weeks. Upon inquiry, it was found that the patient, an Irish child, had long lived entirely on potatoes, as well as her sister.

Case 27.—*Ecthyma.*—M. O., aged 18. This was the elder sister of the last patient, and her case was exactly similar. Of the scabious origin of the disease in both cases I cannot entertain a doubt; yet, in both the usual external treatment failed, and they were both cured by taking the cod-liver oil; thus proving that it is not always sufficient to destroy the

(a) So seldom, indeed, is it thus conveyed, that both Willan and Bateman describe it as "not contagious."

parasite; the general health requires attention also. These cases might have been treated by inunction of the oil, and would probably have got well in half the time.

Case 28.—*Ecthyma and Impetigo.*—A. K., an infant of 12 months, weaned, fed on "tops and bottoms," and would eat nothing else, was brought to the Dispensary June 8, 1855, in an emaciated state, the scalp and limbs covered with pustules, large and small. Some of them were of the character of rupia, others might be called ecthyma, and there were impetiginous crusts in various places. The child was first treated by preparations of iron, with some benefit; but an enlargement of the glands of the neck suggested the use of cod-liver oil, which was accordingly substituted for the iron. Although the child had pertinaciously refused all food, except a small portion of the bread above described, she had no sooner tasted the oil than she sucked it down voraciously, and often cried for it during the day. The improvement was obvious and rapid, and the enlarged glands soon subsided. She has now taken the oil about ten weeks; the scalp is well, and there is scarcely a vestige of cutaneous disease. The health is restored, the appetite is good, and the child is in good condition.

Case 29.—*Rupia.*—(Rupia is classed by Willan among the vesiculæ, and by Wilson among the bullæ; but the vesicles or bullæ contain purulent matter almost from the first, and it differs from ecthyma only in the pustules being less rapidly formed and less distinctly defined.)—J. B., aged 7, a child of costive habit, failing health and appetite, and somewhat wasted, had during three months presented a copious eruption of large purulent vesicles and pustules on the back and buttocks. She was treated with cod-liver oil for three weeks with benefit. The disease then relapsed, and she was cured with sulphate of iron and of magnesia, with the dilute sulphuric acid.

Porrigo Larvalis.—This troublesome disease, generally called the Crusta Lactea, requires a great variety of treatment, which must be regulated not only by the state of the infant's own health, but by reference also to the health of the mother, especially when the child is not fed.

Case 30.—*Crusta Lactea.*—A. H., an infant of four months, was brought to the Dispensary July 6, 1855, with the whole of the upper portion of the scalp covered with a porriginous crust. The child was in good health, but the mother wasted and troubled with tæniæ. Nothing was prescribed for the child, but the mother took purgatives and tonics for three weeks, with some trifling benefit to the child. Cod-liver oil was then given to the mother, and the child's head was well in a week. This is not the only case in which cutaneous disease, existing in an infant from inanition, has yielded readily to the administration of the oil to the half-starved mother.

Strumous Ulcers.—The advantage derived from the administration of cod-liver oil in every form of scrofula, is too well known to the Profession to render any additional testimony necessary. In every one of twenty-six cases of strumous sore in which I have used the oil, it has been of immense service, and, as an external application, it has also appeared to exercise a healing influence.

Syphilitic Sores and Eruptions.—The treatment of secondary syphilis has long been a *questio vexata* with the Profession. My own experience has been highly in favour of mercurial treatment, carefully watched and judiciously regulated. But there are hosts of cases, especially among the indigent classes, in which mercury cannot be borne, and yet all other treatment proves no more than palliative, and scarcely that. I have long been extremely anxious to discover some means which might diminish or destroy the intolerance of mercury in these unhappy cases; and considering that the chief difficulties we have to contend with are those presented by a strumous constitution, I resolved, a few months back, to treat every case requiring mercury, but intolerant of it, by cod-liver oil in conjunction with it. The results will, I hope, appear in a future paper, when a little more time has been allowed to observe them. At present I can only say that I feel extremely sanguine in my hopes that, at length, we shall arrive at a mode of surmounting those formidable difficulties which have hitherto baffled our best efforts in contending with this loathsome and destructive disease.

Alfred-place, Bedford-square.

[To be continued.]

THE PROVINCIAL

PRACTICE OF MEDICINE AND SURGERY.

SERIES ILLUSTRATING THE CONNEXION BETWEEN BRONZED SKIN AND DISEASED SUPRA-RENAL CAPSULES.

(Continued from page 519.)

THE NOTTINGHAM GENERAL HOSPITAL.

CASE OF BRONZED SKIN, WITH EXTENSIVE TUBERCULAR (?) DISEASE OF THE SUPRA-RENAL CAPSULES.

(Under the Care of Dr. ROBERTSON.)

[The following narrative and the remarks on the case have been kindly furnished to us by Dr. Tyndal Robertson, the Physician under whose care the case occurred.]

John Sumner, aged 26, labourer, admitted April 12, 1856. A tall, good-looking, spare man, dark-haired; temperate in his habits, and intelligent. Situation of abode healthy; parentage healthy. Has never before had any serious illness.

Present illness commenced twenty-two months since, while he was at work, with pain in the legs, sickness, and vomiting. He was thus ill for a fortnight, and then returned to work. In a month the sickness returned, unaccompanied by the pain in the legs, and it continued at intervals until fifteen months since, when he began to suffer from pain in the right hypochondrium, of a pricking, darting character. This, with occasional remissions, has continued to the present time. About a year ago he began to change colour, and, to use his own words, "has been jaundiced" since that time.

Present state.—The face, arms, hands, and chest are stained dark-brown; the face and hands most notably, the arms and chest less distinctly so. The conjunctivæ are pearly, and very slightly tinged. The expression is pinched and anxious. Decubitus generally dorsal. Chest is equally resonant. Respiratory and heart's sounds perfectly normal. The heart's impulse is very feeble. The abdomen flat and retracted, not tender either on superficial or deep percussion. There is dulness on percussion on the right hypochondrium, extending two inches below the cartilages, and into the epigastrium. There is no notable flatulence. Tongue furred. Bowels confined. Stools whitish in colour. Urine pale, copious, slightly acid, sp. gr. 1020; deposits no sediment, and contains nothing abnormal. Pulse 80, small, feeble. Appetite very bad. He was ordered 5 minims of nitro-muriatic acid, with inf. gent. co. three times a-day; 2 grs. of blue pill with 5 grs. of extract of dandelion every night; and half a drachm of sulphate of magnesia in broth every morning.

April 20.—He was not quite so well, from great sickness and inability to vomit. An ipecacuanha emetic was ordered, which relieved him very much; and this was repeated with the same effect.

May 2.—Has had rather more pain in the side, and vomits generally every night and after taking food. To have a digestive pill before dinner, and an injection every other morning. To omit all other medicines, and take small quantities of nourishing food at frequent intervals.

9th.—Feels better, with the exception of great weakness. Has now no pain or vomiting. To have 2 grains of quinine, with inf. gentian three times a-day, and half-a-pint of beer daily.

12th.—Feels sick after the medicine. To take only half-doses.

15th.—Very feeble, and unable to take food. The bronzed character of the surface still continues. The epigastric swelling is softer, and the abdomen much retracted. There is distinct aortic pulsation visible to the left of the umbilicus. No murmur is heard on the light application of the stethoscope, but pressure elicits a strong blowing sound. There is dulness from the lower margin of the right ribs to a level with the umbilicus; percussion-note is resonant from the lower end of the sternum to the level of the ribs on the left side. Respiration very feeble. Heart's sounds indistinctly heard. Pulse 80. Tongue furred in centre, and dry. To

have a mixture with ammonia and tincture of cardamoms. Wine ʒiv.

16th.—Was slightly delirious when he awoke this morning. He has had no pain, but frequent vomiting. Abdomen is extremely retracted; soft, except above the umbilicus. There is here an uneven hardness, elongated, and not movable. Bowels not open for two days. Tongue dry and tremulous. Pulse 84, extremely feeble; pupils contracted; great tremor of facial muscles. To continue the wine, and ammonia mixture, ʒij. Gin with water, to relieve thirst.

17th.—At five a.m. he drank some gin-and-water, and said he felt better, but in about an hour he began to sink rapidly, and died about six o'clock.

Autopsy forty-eight hours after Death.—Body emaciated. Abdominal walls greatly retracted. All the organs, carefully examined, gave little trace of disease. The *lungs* were healthy, with the exception of two or three small chalky deposits in the apex of the left one. The *heart* was rather small, and firmly contracted. Softish friable clots occupied both the left auricle and ventricle, the right ventricle, and extended into the pulmonary artery. The *liver* was marked with a few white spots on its convex surface. *Gall-bladder* distended partially. The *stomach* and small *intestines* nearly empty. The *spleen* apparently healthy. The *transverse colon* contained some lumpy fæcal matter, the rest of it, and the rectum, free. The *brain* was not examined, in consequence of the body being unexpectedly removed. The *kidneys* were apparently healthy. The *supra-renal capsules* were much enlarged. The *left* was cut across, and found to consist of a soft, cheesy mass, enveloped in a harder, and rather more yellow-coloured exterior. This could not be broken down with the finger, and, when sliced, was smooth, and somewhat glistening. The soft part was readily broken up, and a small stream of water at once detached it from the nidus in which it was placed. Under the microscope it seemed to be composed of irregular cells, oil granules, and smaller portions of amorphous matter. Some of the cells contained one, some two or three nuclei. Acetic acid applied to a section of the firmer exterior part showed the same kind of cells with the addition of some scattered fibrillæ. Not a particle of healthy structure was discernible in any part of the organs.

The right capsule, which seemed softer and further advanced in disintegration, was sent to the Pathological Society of London through Dr. Quain, who has since furnished the following Report:—

"The capsule, retaining much of its original form, was about the size of half a large hen-egg. On making a vertical section through the mass, it was seen to be composed of a thin capsule, containing a solid and a semifluid mass of a yellow colour. The solid substance, which was chiefly towards the surface, had the consistence of Gruyère cheese, and somewhat its appearance. The semifluid portion, which was evidently the result of a softening of the solid portion, had the consistence of thick cream.

"The solid and semifluid substances, under the microscope, presented very similar constituents—the difference being in the proportions of these constituents. The solid consisted of cells—small, abortive-like, and containing two or three small nuclei of broken-up cells, granular particles, and fatty matter. The more fluid portion contained more granules, more fat, and fewer cells. There were some traces of the original capsular structure in the wall of the anterior portion of the tumour.

"The deposit presented to my mind all the characters of scrofulous matter."

A little of the blood examined after death was rather thicker than usual. The colourless corpuscles were slightly in excess. The cretaceous deposit in the lung consisted of irregular corpuscles, phosphate of lime, and a few crystals of cholesterine. The fæces presented no abnormal appearance, and the vomit, also several times examined during life, showed only the ordinary epithelial cells, starch corpuscles, the *débris* of other edible substances, and occasionally torulæ.

Remarks.—This case, though presenting so well-marked a specimen of disease of the capsules after death, was not characterized during its progress by so distinct a change of colour as might have been expected from the post-mortem appearances. My colleague, Dr. Ransom, has now in the Hospital a phthisical patient in whose case the peculiar bronzing is much more evident and clearly defined than in the case of Sumner. The partial absence of bile from the stools, and the evidence of a congested state of the liver on admission, led to the administration of mild alteratives; but the feeble and ill-nourished state of the patient made us carefully avoid weakening him by any but the simplest means. No change being effected, and the symptoms of debility continuing to increase, tonics in various forms, and generous diet in all its forms, were successively given; and, to unload the large bowel (which was throughout unusually torpid, query, from connexion with the capsular disease?) enemata were ordered every other morning, with good effect. The intellect remained clear to the last, and the only peculiarity in the mental state was, that throughout the progress of the case a despondency and expectation of a fatal termination (very different to the hopefulness we are accustomed to see in phthisical patients) seemed to actuate the mind. Almost every case which has yet been recorded has proved fatal.

In nearly all, the strengthening and ultimately stimulating plan of treatment seems to have been required and pursued; and a more extended and accurate knowledge of the disease will be necessary before we can discard this, which is in reality an empirical and not a rational mode of treatment. Meanwhile, I perfectly agree with one gentleman who has written very ably upon the subject, that, whether the capsular disease is strumous, cancerous, or attended by atrophy, or fibroid enlargement, it is probably in the first instance attended by inflammation. If the disease, therefore, could be recognized at its very outset, a mild antiphlogistic treatment by some of the preparations of mercury, counter-irritation assiduously applied, and nourishing non-stimulant food, would seem to be that most likely to be serviceable. The subject, in all its bearings, and both to the physiologist and to the practical Physician, is full of difficulties; but it is also replete with interest; and its investigation, I think, will not be unattended, ultimately, by most useful and gratifying results.

Medical Times & Gazette.

SATURDAY, JUNE 28.

MEDICAL EVIDENCE FOR THE DEFENCE OF PALMER.

There is no doubt whatever but that the estimation in which Medical evidence is held by society has, to use the lightest expression, not been improved by the testimony given at this trial. There is no house we enter, where this wretched business is discussed, in which we do not hear the observation: What shocking discrepancies among the Medical witnesses! What a poor exhibition the doctors have made of themselves! Let us, then, offer a few comments, by way of warning, on the different ways in which Medical witnesses may render themselves and their Profession objects of blame.

In the first place, there are some Medical witnesses who have not the power, or who will not take the trouble, to work out in their own minds a clear, definite, self-coherent opinion of the matter in question. There is no clear boundary line in their own minds between that which they believe and that which they do not; hence, on cross-examination, they are easily led into fatal admissions, and one part of their evidence is neutralized by another.

Then, again, there are some who, supposing them to form a clear conception of their subject, do not choose to express themselves in language such as a jury can understand. Or, possibly, instead of evidence they attempt to give a lecture; they puzzle the jury; and their technical language is distorted by counsel into meanings which they never dreamed of. So long as witnesses confine themselves to pure English, the jury cannot mistake them; grand technical words may be perverted into half-a-dozen interpretations.

In the next place, witnesses continually lose sight of the

difference between *I think*, or *It is probable*, and *I know*, or *It is certain*. They give their opinion as to what is probable or possible with the same degree of assurance as ought to be reserved only for matters which they have derived from their own observation and experiment. Hence they lay our Profession open to the charge of grave discrepancies upon matters of fact. But this is not a just charge. There is in general no discrepancy of opinion about ascertained facts. But where the beaten road of observation ceases, there is no end to the imaginary and conflicting opinions or probabilities which may be deposed to.

There is one point more, which is the most important of any. We hear the most severe remarks on the circumstance that Medical witnesses appear to hire themselves out like advocates, and to sell their opinions and their oaths to the best bidder. This is not true, as a general fact, although to some extent it may seem so. But the causes of this apparent scandal are connected with the mode in which justice is administered in this country.

A man is accused of any given crime. The prosecutors follow up the charge with all the activity in their power. It is left to the accused to muster the best defence he can. The central judicial authority sees fair play, and directs a verdict according to the evidence, but does not employ any machinery for seeking out truth in the abstract. Now, let us suppose that the scientific persons consulted by the prosecution show, however unconsciously, a strong bias; that one of them goes the length of writing—even during the investigation—an indiscreet letter in a Medical journal, on the matter which is, as it were, committed to him judicially and confidentially; that one of these witnesses expresses positive opinions strongly on matters which, at the least, are doubtful; then, we ask, is it not in accordance with the simplest feelings of fair play, that other scientific witnesses should present themselves; should express their dissent from such of the opinions of the witnesses for the prosecution as they conceive to be unfair or controvertible, and should give the prisoner the benefit of such deductions as ought fairly to be made from the credibility and discretion of the witnesses for the prosecution?

Let any one of us have a patient who dies suddenly in some strange manner, and ourselves (with character unjustly damaged by his decease) be accused of poisoning him. This is the honest way of putting the question; for none of us can tell how soon it may come home to ourselves. Should we be willing to trust our lives to the opinion of the scientific witnesses who might happen to be first applied to by the attorneys for the prosecution? With our knowledge of human nature, could we conceive it possible that these gentlemen could escape some bias, some feeling that perhaps their professional reputation depended on the circumstance of establishing our guilt?

We see but one alternative. Either the Medical witnesses should be constituted as a commission sworn to sift the case, to act as assessors to the Court, and to pronounce an impartial opinion upon the scientific part of the case; or the present system with all its anomalies and scandals must go on. At all events, whatever may be said of the witnesses, it were a grievous injustice that any member of our Profession should be found guilty, in such a case as that in which Palmer has, as we think, been righteously condemned, until every conceivable hypothesis consistent with his innocence, no matter how absurd, had been in turns examined, and found untenable.

TRADING IN GRIEVANCES.

Many members of our Profession have gained considerable credit by their zeal in detecting adulterations of food and similar frauds on the health and pockets of the community. But that credit will soon be used up, if they seem desirous of making the rascalities of others a source of profit to themselves. As soon as they themselves become traders they will be rivals, and cannot be the impartial judges of other tradesmen's wares. We observe with regret that some of our brethren are embarking in a course which must destroy their credit as independent judges, and which, we suspect, will make them none the richer. Such advertisements as the following have appeared, and seem to be multiplying:—

"A Medical man, M.D. and M.R.C.S., who has paid great attention to the ADULTERATION of a certain ARTICLE OF DAILY CONSUMPTION, and is favourably known by his writings thereon, is desirous of meeting with a party who can advance £2000, in order to set on foot an establishment for supplying a genuine article, for which the advertiser's name will guarantee success. Apply, etc."

"LONDON UNADULTERATED BREAD COMPANY (Limited). Capital, £10,000, in shares of £10. Calls, 5s. per share. Director and Secretary, Aquila Sicher, Esq., M.D., F.C.S., etc., etc.; Author of the Work on Adulterations of Bread and Butter, etc., etc., etc."

Before any of our readers are foolish enough to invest their hardly earned savings in any of such speculations as these, we beg them to consider, that ability to detect adulteration is one thing;—ability to manage a great commercial undertaking is another, and a thing which few of us possess. Something more than a knowledge of chemistry is requisite to carry on the trades of baker, cow-keeper, or wholesale druggist. So soon as we embark in any of these businesses, with what conscience or decency can we criticize the wares of our neighbour? Besides, all commercial undertakings have not science, but pounds, and shillings, and pence, for their legitimate end; and what guarantee will the public have that a Medical company may not adulterate as much as any other company, for the sake of a profit? Besides, if the M.R.C.S. manager of a milk-shop be himself immaculate, how can he guarantee the honesty of his subordinates, who very possibly will cheat *him?* How can he hinder them from milking the cow with the iron tail on some dark winter morning, when milk is scarce, and customers *will* have it?

Just cogitate on these things, wise reader, before you pay your deposit; and recollect that, next to a grievance-maker, the most odious animal is the grievance-monger.

THE WEEK.

A Report has just been presented to the Board of Health upon the Water Supply of the Metropolis, and in this Report some manifest defects in our present system are pointed out, and some important remedial measures are suggested. It has been shown, that there exists a very appreciable relation between impure water supply and the outbreak of epidemic disease. It is very desirable to purify the water supplied to large towns, by abstracting its contaminations and applying them to agricultural purposes. This idea is not new, and it has been broached on several occasions in this Journal. We think that great credit is due to Dr. Snow for his investigations into the relation existing between impure water-supply and epidemic diseases, and we regret to find that, in the Report just presented to the Board of Health, no notice is taken of Dr. Snow's laborious researches. During the fearful epidemic of Cholera in the summer of 1854, Dr. Snow conducted a series of valuable personal inquiries for the first seven weeks of the prevalence of the disease, and the results were published in the numbers of this Journal for September 2 and October 7, 1854. It was only after Dr. Snow had laboured at this task for the period above mentioned, that his inquiries were followed up to the end of the epidemic by the Registrar-General.

As we anticipated, we have received no information on the subject of instituting a series of researches upon some disputed points in poisoning by Strychnia. Without the slightest wish to direct our remarks to any persons in particular, we cannot help observing upon the probability that many experimentalists, perfectly satisfied with their own researches, will write letters to the *Times* and other popular Journals, containing the most startling assertions, but will hesitate to publish their discoveries in the pages of a scientific periodical like our own, where any erroneous views would be subjected to severe and searching scrutiny. The fact is, that, without the slightest wish to be dishonest or mendacious, men are apt to deceive themselves as to the result of experiments devised and conducted by themselves; and it is only when their proceedings are watched by others, and their views confirmed or otherwise by independent testimony, that truth can really be attained. We need not, therefore, warn our readers not to be led astray by the appearance of philosophical disquisitions in the popular journals, which are obviously unfitted for such displays, and to withhold their faith from all results which are not obtained by the severe, though honest and impartial, course of investigation which we pointed out in our last Number.

A correspondent of the *Times* writes to that Journal to state that his life has been insured in the Athenæum Life Office by three different persons, each of whom had a policy granted, and paid the premiums. The writer states that the whole of the business was transacted without his knowledge, and without his consent; and he asks whether such proceedings are lawful. Apropos of Life Assurance Offices, several actions have been brought during the week against some of these concerns for the amount of policies effected. In one case, an office which professed to grant "indisputable" policies, refused to pay the claim on the ground of fraud, as it was alleged that the habits of the insured party were wilfully concealed from the knowledge of the office. This allegation, however, was not sustained; and, although it appeared that the person whose life was assured was addicted to drinking, and had suffered from *delirium tremens*, yet it was held both by Judge and Jury that it was the duty of the office to make all proper inquiries before accepting a policy, and if it failed to do so, it must bear the loss. The verdict was therefore for the plaintiff, who had effected the assurance on the life of another, and who did not appear to be cognizant of his dissipated habits.

REVIEWS.

Chemistry, Theoretical, Practical, and Analytical, as applied and relating to the Arts and Manufactures. By Dr. Sheridan Muspratt. Part XXIII.

The present number of this very useful work is entirely occupied with a continuation of the article on Dyeing and Calico-printing, and is illustrated by a variety of well-executed engravings of the apparatus employed in those processes. The number also contains an engraving of Professor Gay-Lussac.

On Unsoundness of Mind, in its Medical and Legal Considerations. By J. W. Hume Williams, M.D. Pp. 238. London. 1856.

This book consists of a series of Essays, which have already appeared in the *Dublin Quarterly Journal of Medical Science*, and which embrace the consideration of a great number of questions connected with Mental Pathology. The author brings to his task a large amount of information, and his sentiments are those of a scholar and a philanthropist. Many of the subjects discussed are of a very difficult character, and Dr. Williams himself states that his object has been more to point out difficulties than to offer rules. However much this method of writing upon the philosophy of insanity may dissatisfy the lawyers, who require a distinct boundary to be erected between sanity and insanity, and between irresponsibility and criminality, we are convinced that it is the correct method of treating the subject. In fact, Nature has fixed no precise limit between the healthy conditions of the mind and its morbid aberrations; and every case of supposed insanity must be determined on its own merits, with such aid from Medical and moral science as reading and experience can afford.

The Municipal Directory for 1856.

This work contains lists of the Vestrymen and other officials of the various Metropolitan districts, and a great mass of information is afforded upon all subjects connected with our local government. Amid the great variety of district Boards created by Sir Benjamin Hall's Act, some such guide as that before us is absolutely necessary; and we have no doubt that the compilers will find that they have done good service by its publication.

PROGRESS OF MEDICAL SCIENCE.

Selections from Foreign Journals.

ON THE CHANGES WHICH THE SEMINAL APPARATUS UNDERGOES IN THE AGED.

By M. DUPLAY.

In this paper M. Duplay, Physician to the Bicêtre, furnishes the results of careful examination of the seminal apparatus made on the bodies of several aged men.

1. *The Testis and its Coverings.*—In 44 out of 49 cases (1) the tunica vaginalis was found to have undergone alterations. This consisted in more or less adhesions of the surfaces in 17; thickening of the tunica, usually only partial, in 12; and hydrocele in 15 cases. The fluid was always limpid, and varied in quantity from 4 to 200 grammes. In 6 instances the hydrocele coincided with cysts of the epididymis. In 4 cases small cartilaginous or osseous bodies were suspended in the fluid by means of a delicate pedicle that took its rise in the tunica albuginea; and in 4 other cases similar bodies were found loose in the fluid. The rupture of cysts and the irritation caused by these foreign bodies explain the frequency of hydrocele in the aged. (2) The tunica albuginea exhibited lesions in 14 instances, which consisted in 2 in partial thickening; in 3 in the formation of fibro-cartilaginous layers; and in 9 in the presence of small cysts or of cartilaginous and osseous accidental productions. In all the other cases this covering was as in the adult. (3) The testes. The general appearance was as in the adult, with the exception of their being somewhat less rounded and more flaccid. Careful admeasurement in the various diameters compared with those given as normal, exhibited some atrophy, but less than might *à priori* be expected. There was also some diminution in weight observable. Of 58 testes most carefully examined, only 4 exhibited very slight changes in the proper tissue of the organ; this differing in nowise in the others from the normal texture. This integrity confirms the correctness of the conclusions already drawn from former researches by the author, (Archives Générales. 1843,) that the semen continues to be secreted to a very advanced age; and that although it is so in less quantity, it still possesses its fecundating properties, as shown by the presence of spermatozoa.

2. *Epididymis.*—Examined with the greatest care in 59 persons; it was found perfectly normal in 34, and the seat of alterations in 25. Of these, cysts were the most frequent, being present in 16; being sometimes solitary, and at others 2 or more in number, and varying in size from that of a pin's head to that of a cherry. M. Duplay agrees with Gosselin, that they are developed between the serous membrane and the proper tunic; and he has never been able to detect any communication with the seminiferous vessels. The fluid that they contained was limpid, and devoid of spermatozoa. In two cases, the epididymis had undergone true atrophy, and in two induration. Obliteration of the canal, with dilatation below the obliterated point, was observed in six instances, all of which were on the right side.

3. *The Vas Deferens* presented very few notable changes. In 60 men it was quite normal, and in 7 there were alterations consisting in induration with atrophy in 2, induration with hypertrophy in 2, ossification in 2, and tubercular degeneration in 1.

4. *Vesiculæ Seminales.*—Their external appearance is not always the same in the aged; sometimes they are irregularly distended, as at the middle period of life, and this not only in men of 60 or 70, but also in those of 70 or 80. This was the case in 38 individuals of the latter category, while in 12 aged more than 80, the same normal configuration was observed in 3. In other subjects, however, and larger in number, these organs, in place of being distended and projecting, are uniform on their surface and more or less flattened. Such was the case in 8 out of 14 persons between 60 and 70, in 14 out of 38 between 70 and 80, and in 6 out of 10 above 80. In some cases this flattening co-existed with the ordinary length, but in others this was diminished also. Measurement showed some diminution in length compared with that given by anatomists, but such diminution is less evident with regard to the transverse diameter. Their walls were found healthy in 39 out of 67 subjects, while in 14 there was thinning with atrophy, and in 7 thickening with hypertrophy, the cellular tissue being the element chiefly concerned in the induration. Simple hypertrophy of the external membrane, without the participation of the surrounding cellular tissue, has been several times observed; but in both forms of hypertrophy the mucous membrane has always been found to be healthy. The lacunæ, or cellules, which are observed on the longitudinal incision of the vesiculæ, were observed in 8 cases either much contracted or quite obliterated, their partitions being hypertrophied. In 3 this existed independently of any other lesion, while in 5 it coincided with hypertrophy of the walls and cellular tissue, the result of chronic inflammation. In two or three instances tumours have been found developed within the walls of the vesiculæ.

5. *Ejaculatory Ducts.*—Although these were examined with great care in 67 subjects, changes were very seldom observed. In 62 of these, between 60 and 86 years of age, they were found quite healthy, and only in 5 were they more or less altered.

6. *Conclusions.*—The secretory apparatus of the semen undergoes very few notable changes in old men, these consisting in a slight degree of atrophy. Such a change cannot explain their impotence, inasmuch as the semen that is secreted possesses the fecundating element. The lesions have their seat rather in the accessory part of the apparatus. Although more common than at other periods of life, they still cannot influence the fecundating power, seeing that they are placed beyond the secretory tissue, and in no wise impair its functions. To ascertain the cause of the impotence of the aged, our attention must be directed rather towards the excretory than the secretory apparatus, especially to obliterations which occur in the canal of the epididymis, the vas deferens, and the vesiculæ, the effect of which is to prevent the passage and accumulation of the semen. We may also conclude that the seminal apparatus does not present any constant modifications which explain the occurrence of impotence in the aged, as a rarefaction of the pulmonary tissue does the modifications which respiration and hæmatosis undergo at this period. Almost all these lesions may, although seldomer, be met with at other periods of life, and give rise to the same consequences. The impotence of the aged must, therefore, be attributed to other causes than the anatomical changes observed in the apparatus for the secretion and excretion of the semen.

Archives Générales, Tome VI., pp. 129 and 428.

ON THE OPERATION FOR CANCER OF THE TONGUE.

By M. CHASSAIGNAC.

In this paper M. Chassaignac calls attention to the superiority of his operation by *ecrasement*, as compared with other means of removing the tongue. The following are some of the conclusions:—1. The operation of total or partial amputation of the tongue exposes the patient to the danger of hæmorrhage, purulent infection, and disturbance of the functions of the organ. 2. The circumstances which impart to hæmorrhage of the tongue a special character of obstinacy are, (1) the size of the arteries, (2) the dissolving of the coagula by the buccal fluids, (3) the absence of any point of resistance against which compression may be made, (4) the excessive mobility and constant changes in the volume of the organ, defeating the best surgical combinations, (5) the difficulty of seizing and ligaturing the open mouth of the vessels, (6) the dissolving of caustic, or the rapid moistening of the eschars, and (7) the retraction of the arteries within the tissue of the organ by the action of the longitudinal fibres. 3. The putrid intoxication produced in these operations is caused by the rapid decomposition of the contents of the buccal cavity, due to its constant moisture, high temperature, its inflamed state, the access of air, and the gangrenous condition of more or less of the lingual tissue. 4. The employment of caustics for the destruction of cancer of the tongue is contra-indicated, (1) by the insufficiency of the action of the substances employed in consequence of their solution in the cavity, (2) the diffusion and extension of their action beyond the proposed limits, (3) the danger of poisoning from their penetration into the stomach. 5. The actual cautery (1) becomes too rapidly extinguished in so moist a cavity; (2) destroys the tissues to which it is applied to an insufficient depth; (3) excites very violent inflammation; and (4) the eschars soon become moistened, and pass into a state of putrefaction long before their final expulsion. 6. The ligature requires a period of from five to eight days for the separation of the parts to which it is applied, the patient being during this time exposed to putrefying intoxication and great suffering. 7. *Erasement linéaire* possesses the advantage over the ligature of not giving rise to putridity, while it is to be preferred to excision from causing a much smaller wound, and being quite exempt from the danger of hæmorrhage. In order to effect the complete division of the tissues by this means, not less than half-an-hour is requisite; and we might, without any other inconvenience than the annoyance it gives the patient, extend it over from twelve to thirty-six hours. The instrument should be of very light construction, so as to allow of its being left *in situ* as long as the operator may deem it necessary. The operation by *ecrasement* is the only mode of amputating the tongue that always permits of the employment of anæsthetics. 8. Prior to performing the total or partial amputation of the tongue, œsophagian catheterism should at least be once performed, in anticipation of the possibility of requiring to have recourse to it hereafter.

Archives Générales, Tome VI., p. 684.

ON THE SEX AND HEREDITARINESS OF TWINS.

By M. BAILLARGER.

M. Baillarger states that in 256 deliveries, the sexes were thus distributed:—

Two boys in 100.
Two girls in 58.
Boy and girl in 98.

Thus the union of two boys is almost twice as frequent as is that of two girls, while the union of a boy and girl is almost as frequent as is that of two boys; the boys thus surpassing the girls (298 to 214,) by more than a third, while the proportion in the entire number of births is 17 boys to 16 girls. It may also be remarked in reference to the great preponderance of male over female still-born children, (17 to 12,) that a considerable contingent is contributed by twin births to these.

Twin births are hereditary in certain families under different conditions. Thus a great number of facts prove that the daughters of mothers who have borne twins, have twins themselves, a generation being sometimes missed, when the granddaughter has one or more twin pregnancies. Facts which M. Baillarger has accumulated, also tend to prove that this hereditary predisposition may be transmitted to the sons, certain men having the faculty of procreating two children, when no hereditary predisposition to this exists on the part of the mother.—*L'Union Médicale*, 1855. No. 142.

EXCERPTA MINORA.

Pharyngeal Gravel.—M. Guénau de Mussy relates a case which he regards as unique, and which he met with in the person of a young Physician from Baltimore, who had come to take the waters at Eaux Bonnes. To the ordinary symptoms of granular pharyngitis were added severe pain and the expulsion of concretions several times a-day. The follicles presented white points, which projected, gave issue to concrete matters, and then subsided. The concretions were composed of carbonate and urate of lime. Various means had been tried for relieving the pharyngitis, with only temporary success.—*L'Union Méd.* 1856. No. XVIII.

Discharge of an Abscess through the Skin.—M. de la Rue relates his own case, of a large abscess formed on one side of the rectum, gradually discharging itself entirely through the skin, after the employment of baths, prolonged during many hours. The most careful examination failed to detect any rupture of the integument.—*Gazette des Hôp.* 1856. No. VII.

Glycerine in Itch Ointment.—M. Bourguignon recommends the substitution of glycerine for lard, in the formation of itch ointment, as being quite as efficacious, and a far more pleasant preparation. For Hospital practice his formula is as follows:—Tragacanth 1 part, subc. of potass 50, well-powdered sulphur 100, glycerine 200, various essences, as lavender, etc., 5 parts; form a mucilage with the gum and 30 grammes of the glycerine, add the potass, then the sulphur and rest of the glycerine gradually, and, finally, the essences. For private practice he uses a more expensive formula, viz.:—Two yelks of eggs, essence of lavender, lemon and mint, āā 5 parts; essence of clove and canella, of each 3; tragacanth 2, sulphur 100, and glycerine 200 parts. The essences are to be intimately mixed with the eggs, and a mucilage formed with the tragacanth, after which the sulphur and glycerine are to be gradually added.—*Gazette des Hôp.* 1846. No. XIII.

GENERAL CORRESPONDENCE.

ADMINISTRATION OF CHLOROFORM.

[To the Editor of the Medical Times and Gazette.]

Sir,—In Dr. Snow's answer to my inquiries in your Journal a week ago, he states that 9 drachms of chloroform may be administered with impunity, provided the inhalation extend over a sufficiently long time; of which fact I was fully aware, having administered it frequently in cases of labour, and, had its failure resulted from the length of time the agent was employed, I should not have troubled you for an explanation. As far as I can recollect, each inhalation did not extend over a period of twenty-five minutes, at the end of which time there were no other changes in the patient, besides the slight acceleration of the pulse, headache, and a feeling of nausea; let me add, also, that the inhaler was not removed from the nose and mouth of the patient, for the purpose of supplying the sponge with additional quantities of chloroform. My only means of accounting for its inefficiency was the highly nervous temperament of the patient; and I thought it was possible that the blood might have been so deteriorated from the absorption of pus, as to be rendered incapable of absorbing the requisite quantity of chloroform for the purpose intended; and I was in hopes that some such reasons would have been given to my inquiries. I was not aware of the fact that, if the blood contained 12 minims of chloroform, it was sufficient to produce unconsciousness, and should be glad to know how that calculation could be adduced, and whether Dr. Snow meant that the 12 minims must be contained in the blood circulating in the brain. Permit me, through your columns, to thank Dr. Snow for his kind though unsatisfactory answer. I am, &c. E. W. Witten.

St. Bartholomew's Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, June 10, 1856.

Cæsar Hawkins, Esq., President, in the Chair.

REPORTS OF CASES OF COMPLETE CONSTIPATION WITHOUT MECHANICAL OBSTRUCTION IN THE INTESTINAL CANAL.

By T. A. BARKER, M.D., F.R.C.P.,
Senior Physician to St. Thomas's Hospital.

The author commenced his paper by stating that the cases he proposed to narrate afforded illustration of the fact that prolonged and complete constipation may exist without any mechanical obstruction, or at least long after such obstruction, if ever present, had been removed. The cases which he detailed were three in number. The first occurred in a baker, twenty-four years of age, who had been subject to frequent attacks of constipation, continuing for many days and even weeks. When admitted into St. Thomas's Hospital he had passed no fæcal evacuation for six weeks; yet neither on this nor on any former occasion had he ever had any symptoms of ileus. For various reasons it was inferred that there was no material mechanical obstruction, and it was therefore determined to try the effect of mild purgatives and enemata, which had before proved successful. After about ten days the treatment entirely removed the constipation, but the bowels afterwards became relaxed, and the patient omitted to take the medicines ordered to relieve this state; the diarrhœa therefore continued, and he died about three weeks after the removal of the constipation. On examination after death, at about three inches above the anus, the rectum became greatly dilated, and this continued throughout the whole length of the colon, but especially in the sigmoid flexure. The mucous coat was extensively ulcerated, and at the arch the intestinal coats were perforated. The muscular coat was throughout much hypertrophied, and the peritonæum was inflamed, and lymph was effused into its cavity. The second case was that of a female child, aged 8 years, also a patient at St. Thomas's Hospital. It had laboured under constipation for a fortnight or three weeks, and frequently before for long periods. There were no marked symptoms of constitutional disturbance. During the time the child was under observation she was treated by purgatives and enemata, but no satisfactory evacuations were obtained, and she died, gradually exhausted, in about three weeks after admission. After death the alimentary canal, and more particularly the large intestine, were found greatly distended by dark fæcal matter. This was of a stony hardness in the rectum, but softer above. The coats of the intestine were healthy, and the muscular coat greatly hypertrophied. The author remarked that in neither of these cases was any evidence of obstruction detected after death, to explain the constipation which had existed during life, the lower part of the rectum being in each of them quite healthy. In the last, however, it might be supposed the constipation was due to long-continued neglect of the state of the bowels, rendering the most judicious treatment at length of no avail; but in the former, no reason could be assigned for the constipation. In the third case, he suggested that there had probably, at some former period, been a mechanical obstacle, but that had ceased before death, though the constipation continued. In this instance there were symptoms of ileus; the small intestine was found greatly distended with fæcal matter, the colon contracted, and the ilio-cœcal valve quite destroyed by ulceration. The author further alluded to cases described by Dr. Abercrombie in which fatal ileus had existed without any mechanical obstacle, and to cases which he had himself seen, which showed that small and limited adhesions of the intestines, which did not mechanically obstruct the canal, might yet create fatal obstacles to the passage of fæcal matter; while, on the other hand, extensive false membrane, binding all the intestines together, might be unproductive of any serious impediment.

ON AN UNUSUAL AND OBSTINATE FORM OF SWELLING.

By Mr. J. L. MILTON.

(Communicated by Mr. SIMON.)

The author (who described his own case) had long suffered from eczema of the scalp, to which, in June, 1855, were added most severe colicky pains and neuralgia of the face. For this complication of maladies, the inhalation of chloroform was frequently used, combined with quinine, steel, croton oil, and galbanum internally, and the application of counter-irritants, and a strong astringent lotion containing a large amount of hydrocyanic acid and zinc, externally. Under this treatment the neuralgia disappeared, while the eczema was slightly remedied. One morning in September, 1855, a large pyriform swelling, firm and painless, of the colour of the skin, was observed, extending from the inner to the outer side of the left thigh, just below Poupart's ligament. It had disappeared before night. On the following morning, a swelling, five or six inches in length by two in breadth, of the same character in every respect, save that it was red, appeared just below the crest of the left ilium; this travelled slowly down the left side of the sacrum, and then across to the right side of the pelvis, where

it gradually faded away in a few days; that portion of the tumour which had been first formed having, however, disappeared much earlier. For three weeks, similar tumours formed daily about the pelvis and thighs; sometimes two or three formed simultaneously; after that time they were scattered and less frequent. About the end of October the face was first attacked; a hard swelling, which ran its course in about eight hours, passed slowly over both eyes, from right to left, completely excluding light while the attack was at its height. On the 11th of December, a most severe attack occurred in the face, the mouth and parts about it being the first seat of the swelling. Three times the throat was affected, the swelling reaching its maximum in that situation in half an hour, and giving rise to great alarm from the interference with respiration. One or two appeared at different times on the legs and arms. The number and severity of the attacks steadily declined from the last-named date, and finally disappeared in the March following. The swellings were never painful, nor did they yield, though firmly pressed. Stiffness and distension were the only sensations remarked in connexion with them, the integument over them being generally raised half-an-inch and unaltered in colour. No desquamation or itching followed their subsidence, nor did any constitutional disturbance accompany either their outbreak or decline; the eczematous eruption was neither aggravated nor improved by their appearance; they never formed in the afternoon or evening, all which were noticed having commenced between four and ten o'clock a.m.; and, with one exception, all reached their utmost height in four hours. Those on the face were generally a week in subsiding; the others disappeared almost as rapidly as they arose. Colchicum and bichloride of mercury appeared to hasten the disappearance of the affection, of which the author, after diligent search, could discover no previous description.

Dr. Webster said he had known such affections result, especially in hot climates, from the drinking of cold liquids on an empty stomach when the person was warm.

Mr. Milton did not think his attack could have been thus occasioned, the eczema having continued during the spring and the early part of the summer, when the weather was unusually cold for the season of the year.

Dr. Stewart asked if the author was subject to rheumatism, or whether a rheumatic diathesis was observable in his family. He had lately seen several cases in which very anomalous forms of skin disease had been the precursors by some days of rheumatic attacks. He had seen erythema marginatum, and also some forms of purpura accompanying rheumatism. Eczema was frequently the manifestation of gout, and could only be cured by colchicum.

Mr. Milton stated that gout was hereditary in his family.

Mr. Robert Taylor said, that a few years ago he had a case somewhat similar to that mentioned by the author, in the person of a young gentleman, all whose family were subject to gout. The swelling appeared principally in the arms. It disappeared in about a year. He (Mr. Taylor) recommended colchicum.

REPORTS OF CASES OF PURPURA HÆMORRHAGICA, FROM FRIGHT.

By T. OGIER WARD, M.D.

The author stated that his object in bringing forward these cases was, to show that this affection, which is usually the result of long-continued depression of the vital powers, may be produced in the course of a few hours, by a violent mental shock. The first case related was that of a child 4 years of age, which was extremely alarmed by having been corrected at school. Three days after, without any other assignable cause, except the alarm so created, the child had an eruption of petechial spots, which spread over all parts of the body and limbs, and in seven days after it died of a sudden attack of convulsions, terminating in coma, and dependent on the effusion of blood into the cerebral hemispheres. The second case was that of a boy, who, when walking in the fields, was attacked by a horse, and fell, but did not appear to have sustained any material injury. He was extremely alarmed, and on his return home his nostril began to bleed, and, when undressed at night, he was found to be covered with numerous larger and smaller purple spots and patches. He passed a restless night, crying during sleep about the horse, and the following day had febrile symptoms, with engorgement of the liver, and passed blood by stool. He recovered after an illness of about a fortnight's duration. The third case was quoted from a lecture by Dr. Seymour, published in the *Medical Gazette*. The author concluded his communication with some remarks upon the probable cause of the sudden change in the condition of the blood, in cases of this description, and he concluded that the affection was more likely to occur in children and females, from the smaller proportion of solid materials which their blood ordinarily contains.

In answer to the President, Mr. Ward stated, that in the case of the little girl he did not think that extravasation was caused by a blow on the head; she appeared to suffer more from fright than from the severity of the punishment.

Dr. Stewart said, that hæmorrhage in the brain might occur to some extent independently of direct injury. He remembered a case of death from purpura in an adult, in which, after death, the effusion into the brain was found to be excessive; the septum of the ventricle was broken down, and the central portion of the brain filled with enormous clots of blood.

Mr. Henry Lee mentioned the case of a child who had broken its leg, and shortly afterwards died. There was considerable extravasation of blood in the liver, and also about forty small extravasations under the skin. These he thought might be the result of some injury, but on examination he found that the effusion was in the cellular tissue under the skin. He was unable to account for these extravasations, but thought they bore some analogy to the case mentioned by Dr. Ward.

The Society then adjourned.

HARVEIAN SOCIETY.

June 5, 1856.

Mr. Ure, Vice-President, in the Chair.

ON A SPECIAL POINT CONNECTED WITH THE DIAGNOSIS OF HARD CATARACT.

By H. HAYNES WALTON, Esq.

Except in the eye I am unaware of any natural change incidental to age, a change consisting in the addition of slight colour, that bears so close a resemblance to a specific disease, as to be mistaken for it. The natural "colouration" of the lens bears this relation to cataract, besides having the effect of masking the commencement of the affection, and I have been induced to bring the subject before the Society, because it is important, because I know that it is not generally understood, and because it is a great stumbling-block to students in ophthalmology. Under adult age, the pupil is usually so black, that any opacity is quickly recognized, and the existence of cataract at once detected; but later in life, if the power of vision be interfered with from any cause, the crystalline colouration which is then developed, may deceive, and induce the suspicion, if not the conviction of the existence of cataract. Again, at the latter period, when cataract is quite incipient, and the central part of the lens is first affected, as it sometimes is, although not by any means so frequently as Surgeons suppose, it may be impossible, in our present state of knowledge, to detect it, because of the "colouration," and, at best, only a broad guess can be made according to the subjective symptoms. The introduction of a case will assist my elucidation. A lady, aged 75, desired me to examine her eyes, as an optician, to whom she had applied to have her spectacles repaired, pronounced, from the appearance of her pupils, that there was cataract. Certainly, if a brownish grey colour may be taken as indicative of this much-dreaded disease, the tradesman was justified in his supposition, as this was very apparent, and my own first impression was, that cataract did exist; but, being well aware of the possibility of deception, and the absolute necessity of a careful examination of a person who, with such eyes, could walk readily into my consulting-room, and, in front of a large window on a bright day, take a seat without blundering, I reserved my opinion till after the necessary inquiry. I asked her to read with the eyes alternately, and putting on her glasses, a pair of 48-inch focus, the same very low power that she had used since such aid was required, she read rapidly, with the left eye, diamond type, and the still smaller cha-

racters on the dial plate of my watch, while, with the other, only large print could be made out. A close inspection of the eyes did not discover any very marked difference in the crystalline lenses, till the pupils were dilated, when I perceived the disparity, which was not great, but yet unmistakeable. The remark of the optician induced her to compare the power of her eyes, till when she was ignorant of the existing defect, an occurrence not at all uncommon. It was evident, therefore, that in both eyes "colouration" was very marked. In the left there was nothing more. In the right was added the commencement of lenticular degeneration. It is difficult to account for the fact that an amount of colour so decided as to be apparent to an unprofessional bystander, and according to our notions of the physiology of the eye, more than enough to affect sight materially, did not produce a more decided result. That it has an effect by absorbing light, there can be no question; and I believe its chief consequence is, the necessity for convex glasses in advancing life. From a very extensive examination of lenses extracted soon after death, I have found that the "colouration" is not uniformly in a ratio with the age of the individual, as in some persons it may be more marked at 50 than in others at 80, and I have even met with a difference in the eyes of the same individual. But this is only a confirmation of what may be observed in life, and with which I have been acquainted for years. A practical inference, therefore, is, that colouration is not a disease, not a progressive affection that destroys sight, but a slight natural change, incidental to age, and that cataract is a degeneration, a decay that progresses. It is well, however, to give some substantial proofs of the correctness of these views, and I have much pleasure in using that which has been afforded by the labour of my colleague, Mr. R. Taylor, who has been investigating the matter microscopically. He writes:—"In elderly people, without an exception, so far as I have observed, the lens assumes an amber colour, more or less deep. The age at which this change commences varies exceedingly. I have seen it distinctly present at 30, and very strongly marked at 35, while, again, it has been but slight in a person of 60. Generally speaking, it will be found at the age of 40; I have never failed to find it at 45. It appears to be more easily developed in the coloured races, and in persons with any admixture of black blood; but my opportunities of observation on this point have been very limited. The colour pervades the whole of the lens, but is most intense in the nucleus, and fades off gradually in the cortical layers. When the "colouration" is very intense, it impedes the transmission of light, so as to impair the sight, though the lens remains perfectly clear and free from opacity. Such persons are best in a bright light, and are frequently benefited by convex glasses, which concentrate the light. Notwithstanding the depth of colour, I have never heard any complaint of a yellow hue being thrown over objects, as is the case in looking through a piece of yellow glass, nor is there any difficulty in distinguishing different shades, even of blue and green. The colouring matter, which is said to be iron, is in solution. There are not any pigment cells or granules; which last, as it is said, are found in black cataracts. The coloration does not appear to interfere in any way with the healthy condition of the lens; in the oldest which I have examined, from a woman, 93 years of age, the lens tubes, both nuclear and cortical, were perfectly healthy; though they, as well as the superficial cells, were tinged of a bright amber colour. In cataract, on the contrary, the lens is disorganized; the superficial layers are softened and broken up, so as, in advanced cases, to be reduced almost to the condition of a pulp, which renders the drop of water, in which it is examined, turbid and milky. The opacity is due chiefly to a quantity of fine molecular matter, the result of the coagulation of the albuminous blastema of the lens, which is found partly aggregated in masses, and partly studding the exterior, perhaps also the interior of the tubes, as well as, in many instances, filling the large globular cells which lie immediately within the capsule. Occasionally, in cases of long duration, crystals of cholesterine are found interspersed among the lenticular *débris*. The nucleus also undergoes a very remarkable change, becoming hard and dry to an extent very far from anything that is ever seen in the healthy lens of the oldest persons. The tubes are withered, atrophied, and brittle, and fall asunder and in fragments on the slightest touch of the dissecting needle. Their outlines are disfigured by deep, transverse, and longitudinal cracks and fissures, and by irregular nodules, probably of coagulated albumen, and in many instances they show a tendency to split into minute fibrillæ." It is evident, therefore, that on the recognition of these data, and the practical application of them, much error may be avoided, and the absence or existence of cataract rendered more certain, not to speak of the assistance that they offer in unravelling other ophthalmic disease; for lenticular "colouration" has been described as an objective symptom of other affections, "amaurosis" being one of these. It would answer no good purpose to tell of any of the many cases of "colouration" and impaired vision, not due to opacity of the lens, that have been sent to me by Surgeons for operation, under the supposition that cataract existed, nor of other mistakes connected with the subject that have come under my notice, such as the extraction of lenses, not cataractous, but merely coloured. I may say that mistakes are frequently made. In the case that I have detailed, it is easy to understand that had there been defective sight in the left eye, from disease at the posterior part of the eye-ball, how readily it might have been supposed that cataract was present. It may be received as a rule, that, if a person can see to read the smallest type with or without glasses, and discern distant objects clearly, the pupil being undilated, no matter how clouded the lenses may appear, cataract does not exist. After this is understood, the only point on which there can be difficulty is to pronounce whether, in any given case of defective sight, cataract is present or absent; and the solution of which, so far as it can be told, depends on the proper discrimination of physical appearances, the distinction between "colouration" and lenticular degeneration, rather than on any subjective symptoms, although these may greatly assist. With undilated pupils it is difficult, if not often impossible, to recognize the difference. I have known Surgeons of the first eminence in this metropolis err respecting it; hence the necessity, whenever doubt exists, for dilatation. Then, in the expanded pupil, the presence of striæ or opaque bundles of fibres, which so commonly exist in the early stage of cataract, at the circumference of the lens, can at once be detected. "Colouration" is more central and browner, the light penetrates the lens, and the concentration of it is perceptible in the direction in which it falls. The opacity of cataract is more diffused and opaque, and reflects the light. In the first, vision is made worse by dilatation of the pupil, while in the other it is almost always improved, certainly always when the opacity is marked. Indeed, when the pupil is dilated, it is seldom that a correct conclusion cannot be arrived at. The exception is this: When the lenticular degeneration is yet slight, and has commenced in the centre, it may be impossible to detect it, that is, to be able to say with certainty that cataract is present, and the lapse of time only can decide. The late Mr. Dalrymple treated a gentleman for amaurosis. He had prescribed an arsenical preparation for some time without benefit. I was then consulted, and, after a long investigation, I decided that cataract was present, at least in one eye. This disease soon became palpable, and in time I operated on both eyes with the best success. There has never appeared the slightest amaurotic symptom. Can I afford a stronger proof that there may be uncertainty in the matter? When vision is much affected by loss of transparency in the lens, the opacity must be palpable; therefore, when this is not readily detected, any material loss of visual power must be attributed to some other cause, and this applies especially to defective vision in the very aged, in whom the "colouration" is most marked, and when the eye, in obedience to the laws of mortality, which allows an exception, perhaps, only in the prostate gland, is apt to get shrunken, and also becomes, so to speak, vitally impaired. Several times under these circumstances I have prevented the performance of a needless operation, and proved that a feeble retina was the defective cause. I have not found the ophthalmoscope of any service in this matter.

MR. GRIFFIN AND THE UNION MEDICAL OFFICERS.

[To the Editor of the Medical Times and Gazette.]

Sir,—I shall feel obliged by your laying before your readers the following quotation and letters, which will explain to the Union Surgeons the present aspect of our affairs. The private

correspondence I am not at liberty to publish, but I can express my perfect confidence that the Right Honourable Sir John Trollope, who has kindly undertaken to advocate our cause in the House of Commons, will give it the utmost aid of his talent and influence, and that we shall, ere long, succeed in convincing the Legislature that, as a class, the Union Medical Officers have, for a series of years, been most unfairly treated; and in obtaining from the justice of the House a measure to enforce from the Poor-Law Board a proper and equitable system of remuneration.

The Petition, signed by upwards of a hundred Medical Officers at the late Meeting in London, was presented by Sir John Trollope, and referred to the Printing Committee, who detected an informality in the reference to Mr. Bouverie's speech in the House. It was therefore returned to Sir John Trollope, and by him to me, with a recommendation to re-write it, omitting the objectionable quotations; and, as it would be impossible to obtain a repetition of the signatures without great difficulty and loss of time, to affix my signature on behalf of the Association as Chairman. This course I adopted, and the Petition was again presented to the House. I trust the abbreviated Petitions and Memorials will be forwarded to the respective destinations without delay, as a proof to the House that the complaint is general.

I am happy to announce that we have the valuable support of Dr. Hodgkin the Chairman, of Mr. Lord the Honorary Secretary, and other members of the late Convention, whose great experience must materially assist the present movement. Money is at all times the great sinew of war; I therefore trust every member of the Association will consider the second quarter's subscription as commencing on the 24th June. I have at present funds in hand, but nothing conduces more effectually to the conclusion of a speedy and advantageous peace, than a thorough preparation for the continuance of war.

In consequence of Mr. Bouverie's reply to Sir John Trollope in the House, I thought it well to address the Poor-law Board on my own individual case, in order that I might quote to them the evidence given before the Committee of the House of Commons: the result time will discover. Your readers will form their own conclusions as to whether the power of fixing the salaries is vested in the Poor-law Board, or the Guardians.

The £16,000 or £17,000 mentioned by Mr. Bouverie, I view as no real increase at all on the original payments, but rather a slight compensation for the additional labour occasioned by the increase of population, and in no proportion to the previous salaries. I am, &c., Richard Griffin.

12, Royal-terrace, Weymouth, June 21, 1856.

[From the *Times*, Tuesday, June 17.]

Medical Relief to the Poor.

Sir J. Trollope wished to ask the President whether he was prepared to adopt the recommendations of the Committee of 1854 upon Medical Relief to the Poor, viz.,—1. That Medical appointments should be permanent. 2. That the remuneration should be revised and increased. 3. That the districts should be examined.

Mr. Bouverie said, the recommendation of the Select Committee, that the area of the Medical districts should be examined with a view to their limitation, was being done from time to time as occasion occurred. The recommendation that the Medical appointments should be permanent had been complied with. The third point, that the Poor-Law Board should increase the salaries of the Medical Officers where they were inadequate, had been under the consideration of the Board, with the view of obtaining a greater remuneration for Medical men. That had been done to a certain extent, though not to the fullest extent desirable. An increase of £16,000 or £17,000 on the salaries, within the last few years, had been effected; but it was obvious that, unless a disposition existed on the part of the Guardians to concur with the Board, it was not possible to do all that was desirable herein.

Poor-law Board, Whitehall, 20th June, 1856.

Sir,—I am directed by the Poor-law Board to acknowledge the receipt, on the 8th inst., of a Memorial, signed by yourself and others, who were present at a public meeting of Medical and Surgical Practitioners, held at the Freemason's Hall, London, on the 30th ultimo, on the subject of the duties and remuneration of Poor-law Medical Officers.

I am directed by the Board to inform you that that portion of the Memorial which relates to the subject of the remuneration at present received by Medical Officers shall receive their consideration. As regards the request that the Board will, in order to lighten the burden of the arduous duties of Medical Officers, direct the alterations recommended to be made in the form of weekly returns, the Board have carefully considered the proposal, but are of opinion that the alterations suggested cannot properly be made, consistently with the due attainment of the object for which the return is required.

I am, Sir, your obedient servant,

Courtney, *Secretary*.

Richard Griffin, Esq., Weymouth, Dorset.

No. 12, Royal-terrace, Weymouth, June 18, 1856.

My Lords and Gentlemen,—I have repeatedly complained to your Honourable Board, and the Guardians of the Weymouth Union, of the inadequacy of my salary compared with the duties I have to perform. I will not again trouble you with details, further than to say I commenced the year with forty-seven patients on my list, and have since had 108 orders, making, on the whole, 155 patients; for these I shall receive £8 15*s.*, or 1*s.* 1½*d.* per case. During the five quarters that I have been the Medical Officer I have had 687 orders, while the Surgeon for the Melcombe District, with 200 fever cases, has £5 annually more than myself, and the Surgeon for the Wyke District, with the same salary as myself, and a similar distance from the patients' residences, has had but 56 orders. I need not point out the glaring inconsistency of this disproportionate payment. If my remuneration be sufficient, it is clear that of the other Medical Officer is more than sufficient, and the ratepayers are overcharged; if, on the contrary, the Wyke Officer is but fairly paid, I am most unjustly treated.

The Board of Guardians collectively have given no reply to any of my letters but the first. In conversation with individual members of the Board I am informed that they await directions from your Honourable Board on the subject. I trust, therefore, you will at once direct them to award me a fair remunerative salary, as you have the full and absolute power to do; for I read in the Minutes of Evidence before a Committee of the House of Commons, May 26, 1854:—

R. B. Cane, Esq. (No. 12.) "The law has confided in the Poor-Law Board the absolute power of fixing the amount of salary irrespectively of the Boards of Guardians, and if they please they can exercise that authority without reference to the Guardians; but the general mode is to consult the Guardians, to inquire what they deem a proper salary, and, having considered their answer and their views, then to determine what shall be the salary assigned to the officer."

(No. 13.) "Perhaps I may add, that the General Regulations direct, that the Officers are to be paid such salaries as the Poor-Law Board from time to time may determine or approve."

Mr. R. Palmer (No. 70.) "There are instances in which the Poor-Law Board have assigned salaries of higher amount than met with the concurrence of Boards of Guardians; and they have gone even the length of saying, that unless those salaries were paid, they would be obliged to resort to the Court of Queen's Bench to enforce payment of them; but I do not know that there are any instances in which they have been obliged to go so far as to take actual legal proceedings against Boards of Guardians; the knowlege that the Board have the power, and the expression of their intention to exercise it, have been generally sufficient."

I have the honour to be, my Lords and Gentlemen,

Your most obedient servant,

The Poor-Law Board. Richard Griffin.

MEDICAL NEWS.

Apothecaries' Hall. — Names of gentlemen who passed their Examination in the Science and Practice of Medicine, and received Certificates to Practise, on Thursday, June 19, 1856:—

Carr, William, Gomersal, Leeds.
Coucher, Martin Shelton, Woodmanton, Worcester.
Gaffney, Charles, Buntingford, Herts.
Orange, William, Torquay, Devon.
Skinner, William Alfred, Bath.
Suckling, Cornelius Benson, Birmingham.
Whitehead, John George, Whitehaven.

DEATHS.

BARNETT.—June 21, at Farringdon, Berks, John Hale Barnett, Esq., aged 51. M.R.C.S.E. 1842; L.S.A. 1826.

BUTCHELL.—June 23, at Southampton-street, Strand, Edwin Martin Van Butchell, Esq., Surgeon, aged 75.

CROKER.—Lately, at Georgiana-street, Camden-town. Robert Nettles Croker, M.D., H.E.I.C.'s Service, aged 76,

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WE are requested to announce the following death:—At Paris, of fever, June 3, 1856, Susannah, third daughter of the late David Morris, Esq., Surgeon, Colchester, Essex, in her 21st year.

HOSPITAL FOR CONSUMPTION, ETC., BROMPTON.—The lectures at this Hospital are delivered on Fridays, at 4 p.m., and are open to all Medical Practitioners and Students. The courses still to be delivered are by Dr. Edward Smith and Dr. Alison.

DINNER TO R. G. HILL, ESQ., OF LINCOLN.—A number of friends of Mr. R. G. Hill, for many years a Medical Practitioner in the above city, and well-known in connexion with the introduction of the non-restraint system into the local Lunatic Asylum, entertained that gentleman at dinner at the Great Northern Hotel, on Thursday evening last, as a mark of their esteem and respect on his leaving his native city, having recently relinquished the private establishment which he has conducted for a considerable time in Lincoln for a more extensive one in the vicinity of London. Twenty-six gentlemen altogether sat down to dinner, which was provided in excellent style. The Mayor of Lincoln, (W. C. Norton, Esq.,) presided.

AT THE LEVEE, on Wednesday, the general circle was attended by Dr. Lyon Playfair, C.B., Gentleman Usher to Prince Albert in Waiting; and the following presentations took place:—Staff-Surgeon William Arden, on return from the Cape, by Director-General Army Medical Department; Assistant Surgeon Dixey, on return from foreign service, by Colonel Viscount Chelsea; Surgeon C. Ferneley, by the Marquis of Granby; Dr. Forteath, on return from the Crimea, by General Sir A. Clifton; Dr. P. Fraser, on his return from the Crimea, by the Duke of Cambridge; Assistant-Surgeon Dr. Hancox, by Lieutenant-Colonel Towneley; Dr. E. Howard, on return from service in the Military Hospitals at Scutari, by the Director-General of the Army Medical Department; Dr. Jackson, by Lieutenant-Colonel Towneley; Dr. M'Cosh, by the Chairman of the East India Company; Dr. Milroy, Sanitary Commission, Army in the East, by Lord Panmure; Dr. Murchison, by Sir R. Murchison; Dr. L. Robertson, on appointment to the Honourable Corps of Gentlemen-at-Arms, by Right Hon. Lord Foley; Dr. J. Rose, R.N., on promotion and appointment, by Sir J. Liddell; Dr. E. Smith, by the Duke of Norfolk; Assistant-Surgeon H. Turner, Scots Fusileer Guards, on appointment and return from the Crimea, by his Royal Highness the Duke of Cambridge; Surgeon Walshe, M.D., on return from the Crimea, by Field Marshal Viscount Hardinge; Dr. Ruttledge.

FRENCH MEDICAL OFFICERS IN THE CRIMEA.—MM. Quesnoy and Boyer state, that the exact number of Medical men who have died in the Crimea or subsequently, from typhus, at Constantinople, is 38, together with 6 Pharmaciens or Aide-Pharmaciens. Marshal Pelissier has distributed 47 decorations of Officers or Chevaliers of the Legion of Honour among the Medical officers. The changing the positions of the encampments in the Crimea, as recommended by the Inspector-in-Chief, Baudens, and the distribution of patients among the new Hospitals at Constantinople, remarkably diminished the ravages of typhus. There can be no doubt that the losses in Hospital have been immense, and far greater than will be officially made known. In consequence of so many troops having returned to France, the great Hospital at Pera has been closed. This Hospital, which holds 2000 patients, received 27,500 during the two months it was open. Of this number, 13,000 were sent during convalescence either to other Hospitals or to France. The total number of days of treatment amounted to 633,986.—*Gazette Médicale.*

ACADEMIE DE MEDECINE.—M. Trousseau has just been elected into the Therapeutical Section of this body. It excited much surprise that the Section, to which the preliminary classification of the candidates is assigned, sent in the list, 1, M. Boyle, 2, M. Trousseau, and 3, M. Durand-Fardel and Pidoux. Le Académie, however, contrary to its custom, refused to abide by this, and the numbers were for Trousseau, 54, Boyle, 18, Durand-Fardel and Pidoux, each 1. Any other result would have excited great astonishment both in France and abroad.

MORTALITY NOTABILIA.—In the week that ended on Saturday the number of deaths registered was 963. In the corresponding weeks of the ten years 1846-55 the average number was 950, which, for comparison with the deaths of last week, that occurred in an increased population, should be raised by a tenth part, in which case it becomes 1045. It appears that the deaths in the present return are less by 82 than the number obtained by calculation.

BIRTHS.—The births of 812 boys and 758 girls, 1570 children were registered. Average 1441.

METEOROLOGY.—The mean height of the barometer in the week was 29·734 in. The highest reading in the week occurred on the 16th, and was 30·01 in. The mean temperature of the week was 55·6°, which is 4·1° below the average of the same week in 38 years (as determined by Mr. Glaisher). The mean daily temperature was below the average throughout the week. The *highest* reading of the thermometer in the shade was 72·9° on Wednesday; the *lowest* was 44° on Saturday; the range of the week was therefore 28·9°. The highest reading in the sun was 98·8° on Monday; the highest on Friday was 65·5°. The mean temperature of the water of the Thames was 63·3°. Wind, south-west; rain, 1·20 in., of which one inch fell on Friday, and during the storm the temperature fell from 61° to 51°.

DEATHS IN PUBLIC INSTITUTIONS for the Week ending June 21:—

	Males.	Females.	Total.
Workhouses	46	38	84
Prisons	..	..	..
Military and Naval Asylums ..	10	..	10
General Hospitals	31	23	54
Hospitals for Special Diseases ..	9	7	16
Lying-in Hospitals	..	..	..
Military and Naval Hospitals ..	5	..	5
Hospitals for Foreigners, etc. ..	2	..	2
Lunatic Asylums	7	2	9
Total	110	70	180

DEATHS REGISTERED *in the Metropolis for the Week ending Saturday, June 21, 1856.*

CAUSES OF DEATH.	In the Week ending Saturday, June 21, 1856. Deaths of Persons. AT ALL AGES.	Under 20 Years of Age.	At 20 and under 40 Years of Age.	At 40 and under 60 Years of Age.	At 60 and under 80 Years of Age.	At 80 Years of Age and Upwards.	Averages of Temperature and Deaths in 10 Weeks.
Mean temp.	55°6						59°2
ALL CAUSES	963	434	172	156	139	33	950·4
SPECIFIED CAUSES	933	433	172	156	139	33	944·1
DISEASES:—							
1. Zymotic Class	235	166	26	22	20	1	227·2
2. Dropsy, Cancer, and others of uncertain seat	39	2	7	15	13	2	40·1
3. Tubercular Class	180	57	79	35	9	..	184·4
4. Of Brain, Nerves, etc. ..	107	48	13	22	20	4	113·6
5. Of Heart, etc.	42	5	7	11	18	1	35·3
6. Of Respiratory Organs ..	113	67	8	20	14	4	113·1
7. Of Digestive Organs ..	59	22	11	11	13	2	60·5
8. Of Kidneys, etc.	15	1	5	4	4	1	12·8
9. Of Uterus; viz.—Puerperal Disease, etc. ..	5	..	4	..	1	..	7·5
10. Of Joints, Bones; viz.—Rheumatism, etc. ..	7	3	2	2	..	..	7·9
11. Of Skin, etc.	2	1	..	1	..	..	1·7
12. Malformations	5	5	..	..	..	..	3·5
13. Debility from Premature Birth, etc.	28	28	..	..	..	..	25·4
14. Atrophy	22	15	..	1	6	..	26·2
15. Age	35	..	..	..	19	16	37·1
16. Sudden	7	4	2	1	..	..	10·2
17. Violence, Privation, c.c. ..	32	9	8	11	2	2	37·6
CAUSES NOT SPECIFIED	30	1	..	..	..	..	6·6

The following are the number of Deaths from Small-pox, Measles, Scarlatina, Hooping-cough, Diarrhœa, and Typhus, in the Several Districts of London, for the past Week :—

	Population.	Small-pox.	Measles.	Scarlatina	Hooping-Cough.	Diarrhœa.	Typhus.
West.....	376,427	..	6	1	9	8	12
North	490,396	4	5	6	10	4	19
Central ..	393,256	3	4	8	7	2	7
East.....	485,522	1	4	5	7	6	12
South	616,635	2	13	6	11	5	13
Total..	2,362,236	10	32	26	44	25	63

BOOKS RECEIVED.

Hardwich's Photographic Chemistry. Third Edition. London: Churchill. 1856.

Reasons for rejecting the Amended Medical Bill. By W. T. Gairdner, M.D. Edinburgh. 1856.

Hints and Suggestions respecting Seaside Influence on Impaired Health and Disease. By Henry Bell, M.D. Aberystwith. 1856.

A Review of the Present State of Uterine Pathology. By Dr. James Henry Bennett. London: Churchill. 1856.

Histology of the Cholera Evacuations in Man and the Lower Animals. By W. Lander Lindsay, M.D. Perth.

On the Cure of Stammering. By James Hunt. Second Edition. London: Longman and Co. 1856.

TO CORRESPONDENTS.

Mr. W. Adams's Lecture on Orthopædic Surgery will appear in our next Number. The space occupied by the Index prevents its appearance this week.

A Voice from the Mining Districts shall be heard, if possible, through the medium of our columns.

TO THE EDITOR OF THE MEDICAL TIMES AND GAZETTE.

Sir,—A question appeared in last week's *Medical Times and Gazette* regarding the effect of the Canadian climate on those predisposed to pulmonary affections. From a comparison of the various statistics published in Canada, it appears that the mortality from phthisis, bronchitis, and pleuritis is considerably lower in that country than in England, while the prevalence of pneumonia and emphysematous affections is somewhat in excess. Not having these Tables by me at present, I cannot give exact comparative statements, but I can positively say that the difference in the prevalence of phthisis is very marked.

From my own observation in Eastern Canada, I should say that so long as the predisposition to phthisis remains latent, and so long as there are no symptoms of active mischief, a removal to that country is beneficial. In any other stage the end is thereby only hastened. I am, etc.

June 19, 1856. B.

Mr. Clarence Hyde, Kinsale Barracks, County Cork.—According to the provisions of the New Medical Bill, members of the Royal College of Surgeons would register as Surgeons; but if they intend to practise both Medicine and Surgery they would be obliged to undergo an examination in Medicine and to pay a separate fee, before being registered as Licentiates in Medicine and Surgery.

A Student.—When a solution of iodide of potassium is mixed with the spiritus ætheris nitrici, a change to an inky colour is said to ensue, with a strong smell of iodine. The probable explanation is, that the acid contained in the sp. æth. nitr. seizes upon potass and liberates iodine. The spiritus ætheris nitrici of the shops ought to consist only of the hyponitrite of the oxide of ethyle, but it is generally contaminated with nitrous acid and aldehyde. Perform the experiment with different specimens of sp. æth. nitr., and communicate to us the result.

Dr. Ladd.—We regret that we have not room this week for the Biography forwarded to us.

M. R. C. S. and L. S. A.—The Pauper Lunatic Act requires a return to be made of all persons of unsound mind who are chargeable to the parishes: an imbecile person, therefore, *chargeable to the parish*, must be visited by the Medical officer quarterly, and his visit must be paid for. In the case placed before us, the facts are not set forth with sufficient clearness to enable us to give a more precise opinion.

A Rural Surgeon writes to us upon the supposed injustice contemplated in the new Medical Reform Bill, in compelling members of the College of Surgeons, who are now practising Medicine, to undergo another examination and to pay a fee before being registered as Licentiates in Medicine and Surgery. Our Correspondent forgets that members of the College of Surgeons are not legally entitled to practise Medicine; and if any new law were to enable them to do so without further examination, a very natural outcry would be raised on the part of those who are fully qualified to practise both Medicine and Surgery.

Mr. W. Parker.—It is very possible that we may be mistaken in the estimate which we form of the value and importance of Mr. Parker's discoveries in Medical Science; but Time, which is the great arbiter, will decide the point between us.

Dr. E.—Mr. Toynbee attends at St. Mary's Hospital on Mondays and Thursdays, when he gives clinical instruction upon the diseases of the ear.

Dr. J. G. Swayne's Letter will appear next week.

We have received a copy of the Reasons for supporting the "Amended Medical Bill," by the representatives of the Royal College of Physicians of Edinburgh; and we will endeavour to publish the document next week.

We copy the following *morceau* from a Manchester paper, and regret to find that the advertiser is a member of our Profession.

"Epileptic Fits, or Falling Sickness.—A most important discovery for the cure of this disease has been made by J. Hepworth, B.A. Cambridge, and many years Surgeon to the Leeds General Eye and Ear Infirmary. None need to apply after the age of 46, nor where there organic disease of the brain.—Pudsey, near Leeds."

COMMUNICATIONS have been received from—

Dr. Hyde Salter; Dr. Edward Smith; Mr. Richard Griffin; Mr. W. Adams; B.; The Royal Institution; Mr. John Horsley; A Rural Surgeon; Mr. Witten; Dr. Bell; D. E.; M.R.C.S. and L.S.A.; Mr. James Part; Dr. C. F. Moore; A Subscriber; Mr. Clarenc Hyde; A Student; A Voice from the Mining Districts; Dr. Laycock; Dr. Alexander Wood, Edinburgh; A Reader; Mr. D. Morris Dr. J. G. Swayne, Clifton; Mr. C. F. Clough, Worksop; Dr. Ladd.

APPOINTMENTS FOR THE WEEK.

June 28. *Saturday.*

Operations at St. Bartholomew's, 1½ p.m.; St. Thomas's, 1 p.m.; Westminster, 1 p.m.; King's, 2 p.m.; Charing Cross, 1 p.m.

30. *Monday.*

Operations at the Royal Free Hospital, 1 p.m.; Metropolitan Free Hospital, 2 p.m.

July 1. *Tuesday.*

Operations at Guy's, 1 p.m.

2. *Wednesday.*

Operations at University College Hospital, 2 p.m.; St. Mary's, 1 p.m.

3. *Thursday.*

Operations at St. George's, 1 p.m.; Middlesex, 12½ p.m.; Central London Ophthalmic, 1 p.m.

4. *Friday.*

Operations at the London, 1½ p.m.; Moorfields Ophthalmic, 10 a.m.; Westminster Ophthalmic, 1½ p.m.

Brompton Hospital, 4 p.m.: Dr. Edward Smith, "Certain Views on the Nature and Treatment of Phthisis."

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